Modbus table

GENSYS COMPACT PRIME

Table of contents

Modbus TCP/IP **54**

Variables **57**

Commands **57**

kW Setpoint [361] 57
kVAR Setpoint [362] 57
Starter n°1 [4652] 57
Starter n°2 [4653] 58
Starter n°3 [4654] 58
Fuel / Gas [4655] 58
Horn [4663] 59
Energize to stop [4674] 59
Generator breaker close [4675] 59
Generator breaker open [4677] 60
Excitation command [4680] 60
Pre-start (Glow plugs & Auxiliaries) [4685] 60
Smoke limit / Position limiting [4686] 61
Damper [4687] 61
Cooling fan [4688] 61
Increase speed by pulse [4699] 62
Decrease speed by pulse [4700] 62
Increase voltage by pulse [4701] 62
Decrease voltage by pulse [4702] 63
Idle speed [4704] 63
Ignition [4707] 63
Battery boost DO [4709] 64
1st non essential trip [4721] 64
2nd non essential trip [4722] 64
3rd non essential trip [4723] 65
4th non essential trip [4724] 65
5th non essential trip [4725] 65
6th non essential trip [4726] 66
7th non essential trip [4727] 66
8th non essential trip [4728] 66
9th non essential trip [4729] 67
10th non essential trip [4730] 67
Faults acknowledged [4737] 67

Generator **68**

Generator V1 [50] 68

Generator V2 [51] 68
Generator V3 [52] 68
Generator U31 (%) [53] 69
Generator U23 (%) [54] 69
Generator U12 (%) [55] 69
Generator U31 [56] 70
Generator U23 [57] 70
Generator U12 [58] 70
Generator I1 [59] 71
Generator I2 [60] 71
Generator I3 [61] 71
Generator Neutral I [62] 72
Generator P1 [63] 72
Generator P2 [64] 72
Generator P3 [65] 73
Generator Q1 [66] 73
Generator Q2 [67] 73
Generator Q3 [68] 74
Generator cos(φ1) [69] 74
Generator cos(φ2) [70] 74
Generator cos(φ3) [71] 75
Generator total P [72] 75
Generator total Q [73] 75
Generator cos(φ) [74] 76
Generator frequency [75] 76
Generator frequency (%) [76] 76
Generator KWh [79] 77
Generator KVARh [81] 77
Number of hours generator running [83] 77
Generator Minutes Run [85] 78
Earth fault current [86] 78
Generator Auxiliary Hours Run [93] 78
Generator Auxiliary Minutes Run [95] 79
Number of hours in Safety Inhibition mode LSB [96] 79
Number of minutes in Safety Inhibition mode [98] 79
Voltage diff. [300] 80
Freq. diff. [301] 80
Phase diff. [302] 80
Phase sequence (0=indirect, 1=direct, 2=Error, 3=No Signal) [304] 81
Generator active power (%) [358] 81
Generator reactive power (%) [359] 81
Fail to close generator breaker [4154] 82

Fail to open generator breaker [4155] 82
Generator breaker open suddenly [4156] 82
Generator breaker close suddenly [4170] 83
Fail to stabilize speed [4477] 83
Fail to stabilize voltage [4478] 83
Generator breaker state [4650] 84
Generator ready [4670] 84
Generator ready and breaker closed [4672] 84
Generator stop [4673] 85
Bus 85
Bus V1 [100] 85
Bus V2 [101] 85
Bus V3 [102] 86
Bus U31 (%) [103] 86
Bus U23 (%) [104] 86
Bus U12 (%) [105] 87
Bus U31 [106] 87
Bus U23 [107] 87
Bus U12 [108] 88
Bus total P [112] 88
Bus total Q [113] 88
Bus cos(φ) [114] 89
Bus frequency [118] 89
Bus frequency (%) [119] 89
Dead bus bar [124] 90
Phase sequence (0=indirect, 1=direct, 2=Error, 3=No Signal) [305] 90
Engine 90
Oil pressure [200] 90
Water coolant temperature [201] 91
Engine speed [202] 91
GE Speed (%) [203] 91
Unexpected stop [4451] 92
Fail to stop engine [4472] 92
Fail to start engine [4475] 92
Timer Ignition ON [4480] 93
Timer Gas ON [4481] 93
Timer Ignition OFF [4482] 93
CAN bus ECU/ECM 94
Protection Lamp [658] 94
Amber Warning Lamp [659] 94
Red Stop Lamp [660] 94
Malfunction Indicator Lamp [661] 95

Engine speed [679] 95
Oil pressure [680] 95
Coolant temperature [681] 96
Accelerator Pedal Position 1 [682] 96
Engine Percent Load At Current Speed [683] 96
Driver's Demand Engine - Percent Torque [684] 97
Actual Engine - Percent Torque [685] 97
Engine Demand - Percent Torque [686] 97
Engine Intake Manifold #1 Absolute Pressure [687] 98
Engine Exhaust Manifold Bank 2 Temperature 1 [688] 98
Engine Exhaust Manifold Bank 1 Temperature 1 [689] 98
Engine Fuel Valve 1 Intake Absolute Pressure [690] 99
Auxiliary Pressure #1 [691] 99
Auxiliary Pressure #2 [692] 99
Engine Oil Filter Intake Pressure [693] 100
Instantaneous Estimated Brake Power [694] 100
Engine ECU Temperature [695] 100
Engine Alternator Winding 1 Temperature [696] 101
Engine Alternator Winding 2 Temperature [697] 101
Engine Alternator Winding 3 Temperature [698] 101
Trip Fuel (Gaseous) [699] 102
Total Fuel Used (Gaseous) [701] 102
Engine Rated Power [703] 102
Engine Rated Speed [704] 103
Active Diagnostic Trouble Code Count [705] 103
Engine Fuel 1 Injector Metering Rail 1 Pressure [706] 103
Nominal Friction - Percent Torque [707] 104
Engine's Desired Operating Speed [708] 104
Engine Total Hours of Operation [709] 104
Engine Trip Fuel [711] 105
Engine Total Fuel Used [713] 105
Engine Fuel 1 Temperature 1 [715] 105
Engine Oil Temperature 1 [716] 106
Engine Turbocharger 1 Oil Temperature [717] 106
Engine Intercooler Temperature [718] 106
Engine Fuel Delivery Pressure [719] 107
Engine Extended Crankcase Blow-by Pressure [720] 107
Engine Oil Level [721] 107
Engine Crankcase Pressure 1 [722] 108
Engine Coolant Pressure 1 [723] 108
Engine Coolant Level 1 [724] 108
Engine Fuel Rate [725] 109

Engine Instantaneous Fuel Economy [726] 109
Barometric Pressure [727] 109
Ambient Air Temperature [728] 110
Engine Intake 1 Air Temperature [729] 110
Aftertreatment 1 Diesel Particulate Filter Intake Pressure [730] 110
Engine Intake Manifold #1 Pressure [731] 111
Engine Intake Manifold 1 Temperature [732] 111
Engine Intake Air Pressure [733] 111
Engine Air Filter 1 Differential Pressure [734] 112
Engine Exhaust Temperature [735] 112
Engine Coolant Filter Differential Pressure [736] 112
Battery Potential / Power Input 1 [737] 113
Key Switch Battery Potential [738] 113
Engine Oil Filter Differential Pressure [739] 113
Water In Fuel Indicator 1 [740] 114
Engine Speed At Idle, Point 1 [741] 114
Maximum speed [742] 114
Engine Derate Switch [754] 115
Engine Auxiliary Shutdown Switch [755] 115
Accelerator Pedal 2 Position [756] 115
Engine Torque Mode [757] 116
Generator Governing Bias [758] 116
SCR Error Lamp [759] 116
SCR System Cleaning Status [760] 117
SCR System Cleaning Inhibited Status [761] 117
SCR System Cleaning Inhibited Due to Inhibit Switch [762] 117
SCR System Cleaning Forced Status [763] 118
Aftertreatment 1 SCR Intake Temperature [764] 118
Aftertreatment 1 SCR Outlet Temperature [765] 118
Aftertreatment 1 Diesel Exhaust Fluid Tank Heater Command [766] 119
Aftertreatment 1 Diesel Particulate Filter Soot Load Percent [767] 119
Aftertreatment 1 Diesel Particulate Filter Ash Load Percent [768] 119
Aftertreatment 1 Diesel Particulate Filter Time Since Last Regen. [769] 120
Aftertreatment 1 Diesel Particulate Filter Soot Load Regen. Thre. [771] 120
Diesel Particulate Filter Lamp Command [772] 120
Aftertreatment Diesel Particulate Filter Passive Regen. Status [773] 121
Aftertreatment Diesel Particulate Filter Active Regen. Status [774] 121
Aftertreatment Diesel Particulate Filter Status [775] 121
Diesel Particulate Filter Active Regeneration Inhibited Status [776] 122
Diesel Particulate Filter Active Regeneration Inhibited Due to Sw [777] 122
Exhaust System High Temperature Lamp Command [778] 122
Aftertreatment 1 Diesel Particulate Filter Conditions Not Met [779] 123

Aftertreatment 1 Diesel Particulate Filter Intake Pressure [780] 123
Engine Derate Request [781] 123
Aftertreatment 1 Diesel Particulate Filter Outlet Temperature [782] 124
Aftertreatment 1 Diesel Particulate Filter Intake Temperature [783] 124
SLI Battery 1 Temperature [784] 124
Aftertreatment 1 Diesel Exhaust Fluid Tank Volume [785] 125
Aftertreatment 1 Diesel Exhaust Fluid Tank Temperature 1 [786] 125
Aftertreatment 1 Diesel Exhaust Fluid Tank Level [787] 125
Aftertreatment Diesel Exhaust Fluid Tank Low Level Indicator [788] 126
Aftertreatment SCR Operator Inducement Severity [789] 126
Aftertreatment 1 Diesel Exhaust Fluid Tank Heater [790] 126
Auxiliary Temperature 1 [791] 127
Engine Auxiliary Coolant Pressure [792] 127
Engine Auxiliary Coolant Temperature [793] 127
Engine Turbocharger 1 Turbine Intake Temperature [794] 128
Engine Turbocharger 2 Turbine Intake Temperature [795] 128
Engine Turbocharger 1 Compressor Intake Pressure [796] 128
Engine Turbocharger 2 Compressor Intake Pressure [1150] 129
Engine Exhaust Gas Port 17 Temperature [1151] 129
Engine Exhaust Gas Port 18 Temperature [1152] 129
Engine Exhaust Gas Port 19 Temperature [1153] 130
Engine Exhaust Gas Port 20 Temperature [1154] 130
Engine Exhaust Gas Port 13 Temperature [1155] 130
Engine Exhaust Gas Port 14 Temperature [1156] 131
Engine Exhaust Gas Port 15 Temperature [1157] 131
Engine Exhaust Gas Port 16 Temperature [1158] 131
Engine Exhaust Gas Port 9 Temperature [1159] 132
Engine Exhaust Gas Port 10 Temperature [1160] 132
Engine Exhaust Gas Port 11 Temperature [1161] 132
Engine Exhaust Gas Port 12 Temperature [1162] 133
Engine Exhaust Gas Port 5 Temperature [1163] 133
Engine Exhaust Gas Port 6 Temperature [1164] 133
Engine Exhaust Gas Port 7 Temperature [1165] 134
Engine Exhaust Gas Port 8 Temperature [1166] 134
Engine Exhaust Gas Port 1 Temperature [1167] 134
Engine Exhaust Gas Port 2 Temperature [1168] 135
Engine Exhaust Gas Port 3 Temperature [1169] 135
Engine Exhaust Gas Port 4 Temperature [1170] 135
Engine Alternator Bearing 1 Temperature [1171] 136
Engine Alternator Bearing 2 Temperature [1172] 136
Engine Fuel 1 Injector Timing Rail 1 Pressure [1173] 136
Engine Wait to Start Lamp [1174] 137

Engine Protection System has Shutdown Engine [1175] 137
Engine Protection System Approaching Shutdown [1176] 137
Engine Charge Air Cooler Thermostat Opening [1177] 138
Engine Throttle Valve 1 Position 1 [1178] 138
Charging System Potential (Voltage) [1179] 138
Transmission 1 Oil Pressure [1180] 139
Engine Fuel Filter Differential Pressure [1181] 139
MDEC module is alive [1200] 139
MDEC module communication error [1201] 140
Engine speed [1202] 140
P-Lube Oil [1203] 140
P-Fuel [1204] 141
P-Charge Air [1205] 141
P-Fuel (Common Rail) [1206] 141
T-Coolant [1207] 142
T-Charge Air [1208] 142
T-Coolant Intercooler [1209] 142
T-Lube Oil [1210] 143
T-Fuel [1211] 143
Actual Failure Codes [1212] 143
Combined Alarm Yellow [1213] 144
Combined Alarm Red [1214] 144
ECU Power [4740] 144
ECU Stop [4741] 145
Inputs/outputs 145
Oil Pressure (Customisable) [150] 145
Water temp. (Customisable) [151] 145
Fuel (Customisable) [152] 146
Battery voltage [204] 146
Input 1 (Customisable) [250] 146
Input 2 (Customisable) [251] 147
Input 3 (Customisable) [252] 147
Input 4 (Customisable) [253] 148
Input 5 (Customisable) [254] 148
Input 6 (Customisable) [255] 149
Input 7 (Customisable) [256] 149
Input 8 (Customisable) [257] 150
Input 9 (Customisable) [258] 150
Analog 1 (Customisable) [259] 151
Analog 2 (Customisable) [260] 151
Analog 3 (Customisable) [261] 151
Output 1 (Customisable) [4350] 152

Output 2 (Customisable) [4351] 152
Output 3 (Customisable) [4352] 152
Output 4 (Customisable) [4353] 153
Output 5 (Customisable) [4354] 153
Output 6 (Customisable) [4355] 153
Relay 1 (Customisable) [4356] 154
Relay 2 (Customisable) [4357] 154
Speed output [4404] 154
Voltage output [4408] 155
I/O CAN bus expansion 155
CANopen DI 1 (Customisable) [800] 155
CANopen DI 2 (Customisable) [801] 155
CANopen DI 3 (Customisable) [802] 156
CANopen DI 4 (Customisable) [803] 156
CANopen DI 5 (Customisable) [804] 156
CANopen DI 6 (Customisable) [805] 157
CANopen DI 7 (Customisable) [806] 157
CANopen DI 8 (Customisable) [807] 157
CANopen DI 9 (Customisable) [808] 158
CANopen DI 10 (Customisable) [809] 158
CANopen DI 11 (Customisable) [810] 158
CANopen DI 12 (Customisable) [811] 159
CANopen DI 13 (Customisable) [812] 159
CANopen DI 14 (Customisable) [813] 159
CANopen DI 15 (Customisable) [814] 160
CANopen DI 16 (Customisable) [815] 160
CANopen DI 17 (Customisable) [816] 160
CANopen DI 18 (Customisable) [817] 161
CANopen DI 19 (Customisable) [818] 161
CANopen DI 20 (Customisable) [819] 161
CANopen DI 21 (Customisable) [820] 162
CANopen DI 22 (Customisable) [821] 162
CANopen DI 23 (Customisable) [822] 162
CANopen DI 24 (Customisable) [823] 163
CANopen DI 25 (Customisable) [824] 163
CANopen DI 26 (Customisable) [825] 163
CANopen DI 27 (Customisable) [826] 164
CANopen DI 28 (Customisable) [827] 164
CANopen DI 29 (Customisable) [828] 164
CANopen DI 30 (Customisable) [829] 165
CANopen DI 31 (Customisable) [830] 165
CANopen DI 32 (Customisable) [831] 165

CANopen AI 1 (Customisable) [1050] 166
CANopen AI 2 (Customisable) [1051] 166
CANopen AI 3 (Customisable) [1052] 166
CANopen AI 4 (Customisable) [1053] 167
CANopen AI 5 (Customisable) [1054] 167
CANopen AI 6 (Customisable) [1055] 167
CANopen AI 7 (Customisable) [1056] 168
CANopen AI 8 (Customisable) [1057] 168
CANopen AI 9 (Customisable) [1058] 168
CANopen AI 10 (Customisable) [1059] 169
CANopen AI 11 (Customisable) [1060] 169
CANopen AI 12 (Customisable) [1061] 169
CANopen AI 13 (Customisable) [1062] 170
CANopen AI 14 (Customisable) [1063] 170
CANopen AI 15 (Customisable) [1064] 170
CANopen AI 16 (Customisable) [1065] 171
CANopen DI 33 (Customisable) [1250] 171
CANopen DI 34 (Customisable) [1251] 171
CANopen DI 35 (Customisable) [1252] 172
CANopen DI 36 (Customisable) [1253] 172
CANopen DI 37 (Customisable) [1254] 172
CANopen DI 38 (Customisable) [1255] 173
CANopen DI 39 (Customisable) [1256] 173
CANopen DI 40 (Customisable) [1257] 173
CANopen DI 41 (Customisable) [1258] 174
CANopen DI 42 (Customisable) [1259] 174
CANopen DI 43 (Customisable) [1260] 174
CANopen DI 44 (Customisable) [1261] 175
CANopen DI 45 (Customisable) [1262] 175
CANopen DI 46 (Customisable) [1263] 175
CANopen DI 47 (Customisable) [1264] 176
CANopen DI 48 (Customisable) [1265] 176
CANopen DI 49 (Customisable) [1266] 176
CANopen DI 50 (Customisable) [1267] 177
CANopen DI 51 (Customisable) [1268] 177
CANopen DI 52 (Customisable) [1269] 177
CANopen DI 53 (Customisable) [1270] 178
CANopen DI 54 (Customisable) [1271] 178
CANopen DI 55 (Customisable) [1272] 178
CANopen DI 56 (Customisable) [1273] 179
CANopen DI 57 (Customisable) [1274] 179
CANopen DI 58 (Customisable) [1275] 179

CANopen DI 59 (Customisable) [1276] 180
CANopen DI 60 (Customisable) [1277] 180
CANopen DI 61 (Customisable) [1278] 180
CANopen DI 62 (Customisable) [1279] 181
CANopen DI 63 (Customisable) [1280] 181
CANopen DI 64 (Customisable) [1281] 181
CANopen DO 1 (Customisable) [4751] 182
CANopen DO 2 (Customisable) [4752] 182
CANopen DO 3 (Customisable) [4753] 182
CANopen DO 4 (Customisable) [4754] 183
CANopen DO 5 (Customisable) [4755] 183
CANopen DO 6 (Customisable) [4756] 183
CANopen DO 7 (Customisable) [4757] 184
CANopen DO 8 (Customisable) [4758] 184
CANopen DO 9 (Customisable) [4759] 184
CANopen DO 10 (Customisable) [4760] 185
CANopen DO 11 (Customisable) [4761] 185
CANopen DO 12 (Customisable) [4762] 185
CANopen DO 13 (Customisable) [4763] 186
CANopen DO 14 (Customisable) [4764] 186
CANopen DO 15 (Customisable) [4765] 186
CANopen DO 16 (Customisable) [4766] 187
CANopen DO 17 (Customisable) [4767] 187
CANopen DO 18 (Customisable) [4768] 187
CANopen DO 19 (Customisable) [4769] 188
CANopen DO 20 (Customisable) [4770] 188
CANopen DO 21 (Customisable) [4771] 188
CANopen DO 22 (Customisable) [4772] 189
CANopen DO 23 (Customisable) [4773] 189
CANopen DO 24 (Customisable) [4774] 189
CANopen DO 25 (Customisable) [4775] 190
CANopen DO 26 (Customisable) [4776] 190
CANopen DO 27 (Customisable) [4777] 190
CANopen DO 28 (Customisable) [4778] 191
CANopen DO 29 (Customisable) [4779] 191
CANopen DO 30 (Customisable) [4780] 191
CANopen DO 31 (Customisable) [4781] 192
CANopen DO 32 (Customisable) [4782] 192
CANopen DO 33 (Customisable) [5100] 192
CANopen DO 34 (Customisable) [5101] 193
CANopen DO 35 (Customisable) [5102] 193
CANopen DO 36 (Customisable) [5103] 193

CANopen DO 37 (Customisable) [5104] 194
CANopen DO 38 (Customisable) [5105] 194
CANopen DO 39 (Customisable) [5106] 194
CANopen DO 40 (Customisable) [5107] 195
CANopen DO 41 (Customisable) [5108] 195
CANopen DO 42 (Customisable) [5109] 195
CANopen DO 43 (Customisable) [5110] 196
CANopen DO 44 (Customisable) [5111] 196
CANopen DO 45 (Customisable) [5112] 196
CANopen DO 46 (Customisable) [5113] 197
CANopen DO 47 (Customisable) [5114] 197
CANopen DO 48 (Customisable) [5115] 197
CANopen DO 49 (Customisable) [5116] 198
CANopen DO 50 (Customisable) [5117] 198
CANopen DO 51 (Customisable) [5118] 198
CANopen DO 52 (Customisable) [5119] 199
CANopen DO 53 (Customisable) [5120] 199
CANopen DO 54 (Customisable) [5121] 199
CANopen DO 55 (Customisable) [5122] 200
CANopen DO 56 (Customisable) [5123] 200
CANopen DO 57 (Customisable) [5124] 200
CANopen DO 58 (Customisable) [5125] 201
CANopen DO 59 (Customisable) [5126] 201
CANopen DO 60 (Customisable) [5127] 201
CANopen DO 61 (Customisable) [5128] 202
CANopen DO 62 (Customisable) [5129] 202
CANopen DO 63 (Customisable) [5130] 202
CANopen DO 64 (Customisable) [5131] 203
Timers/meters 203
Number of generator starts [78] 203
Meter 1 (h) (Customisable) [850] 203
Meter 2 (h) (Customisable) [851] 204
Meter 3 (h) (Customisable) [852] 204
Meter 4 (h) (Customisable) [853] 205
Meter 5 (h) (Customisable) [854] 205
Meter 1 (d) (Customisable) [855] 205
Meter 2 (d) (Customisable) [856] 206
Meter 3 (d) (Customisable) [857] 206
Meter 4 (d) (Customisable) [858] 206
Meter 5 (d) (Customisable) [859] 207
Pre-start timer (Glow plugs & Auxiliaries) [4455] 207
Starter activation timer [4457] 207

Delay between 2 starts [4458] 208
Engine preheat timer [4464] 208
Speed stabilization timer [4465] 208
Voltage stabilization timer [4466] 209
Cool down timer [4467] 209
Engine stop timer [4469] 209
Fail to start engine timer [4476] 210
Power Plant 210
Total generator kW on my segment [25] 210
Total generator kVAR on my segment [26] 210
Global generators cos(φ) on my segment [27] 211
Total mains kW on my segment [28] 211
Total mains kVAR on my segment [29] 211
Global mains cos(φ) on my segment [30] 212
Total renewable energies kW on my segment [31] 212
Total renewable energies kVAR on my segment [32] 212
Global renewable energies cos(φ) on my segment [33] 213
Total battery inverters kW on my segment [34] 213
Total battery inverters kVAR on my segment [35] 213
Global battery inverters cos(φ) on my segment [36] 214
Load kW on my segment [37] 214
Load kVAR on my segment [38] 214
Load power factor on my segment [39] 215
Reserve power kW [373] 215
Reserve power % [375] 215
Number of generator on bus [568] 216
Number of generator ready [569] 216
Number of mains on bus [572] 216
Actual segment [4030] 217
Mains presence on the common bus bar [4032] 217
Slave in Service [4743] 217
Generator protections 218
Fail to synchronize [4051] 218
Bus protections 218
Bus measure error [4315] 218
Communication 219
Controller communication fault [600] 219
Missing GENSYS COMPACT PRIME [605] 219
Missing MASTER COMPACT or BTB COMPACT [608] 219
Missing HYBRID COMPACT [612] 220
Missing BAT COMPACT [613] 220
J1939 Fault [650] 220

Forced droop from inverter communication loss [903] 221
CANopen fault [4750] 221
System 221
Day of the week [10] 221
Day [11] 222
Month [12] 222
Year [13] 222
Hours [14] 223
Minutes [15] 223
Seconds [16] 223
100ms [17] 224
Load uC [18] 224
Overload uC [19] 224
Slave mode enabled [45] 225
Power down nb [353] 225
Power up nb [354] 225
Generator state [4000] 226
Engine state [4001] 226
Internal timer test [4025] 226
Easyflex warning [4213] 227
Easyflex error code [4214] 227
Statuses 227
Phase sequence match [306] 227
Voltage match [307] 228
Frequency match [308] 228
Phase match [309] 228
Synch check relay OK [310] 229
Engine start [4006] 229
Production request [4007] 229
Mode : 0=Manu / 1=Test / 2=Auto [4008] 230
Authentification level [4049] 230
Generator electrical fault summary [4656] 230
Alarms summary [4658] 231
Soft shut down summary [4659] 231
Hard shut down summary [4660] 231
Soft shut down + Help [4661] 232
Generator electrical faults + Help [4662] 232
Default LED [4664] 232
Alarm LED [4665] 233
Auto mode LED [4666] 233
Test mode LED [4667] 233
Manu mode LED [4668] 234

Generator LED [4669] 234
Protection validation [4681] 234
Override ON (Fault is currently inhibited) [4708] 235
Generator breaker LED [4734] 235
Bus LED [4736] 235
In Synchronization [4739] 236
Hysteresis 236
Hysteresis 1 output [4710] 236
Hysteresis 2 output [4711] 236
Hysteresis 3 output [4712] 237
Hysteresis output activation on DI1 [4713] 237
Hysteresis output activation on DI2 [4714] 237
Hysteresis output activation on DI3 [4715] 238
Hysteresis output activation on DI4 [4716] 238
Hysteresis output activation on DI5 [4717] 238
Hysteresis output activation on DI6 [4718] 239
Hysteresis output activation on DI7 [4719] 239
Hysteresis output activation on DI8 [4720] 239

Parameters 240
Generator 240
Regulation type [2013] 240
PT ratio [2100] 240
CT ratio [2101] 241
Nominal voltage [2102] 241
Single phase nominal current [2103] 242
Nominal active power [2105] 242
Nominal reactive power [2106] 242
Base load Generator(s) kW setpoint [2107] 243
Droop (frequency) [2204] 243
Speed output inversion [2212] 243
Droop (voltage) [2250] 244
Power factor setpoint (inductive) [2253] 244
AVR signal output inversion [2254] 244
Generator circuit breaker control type [2300] 245
Generator breaker control pulse length [2301] 245
Undervoltage coil deenergized time [2302] 245
Undervoltage coil security timer [2303] 246
Voltage acceptance [2800] 246
Frequency acceptance [2801] 246
Phase Angle acceptance [2802] 247
Fail to synchronize timer [2803] 247

Action on fail to synchronize [2804] 247
Delay before new attempt [2806] 248
Number of closing attempts [2807] 248
C2S dwell time [2809] 248
Phase offset [2812] 249
Start timer [2855] 249
Stop timer [2858] 249
Low kW active power threshold [2866] 250
Enable renewable energy production dependant start/stop [2883] 250
Start : Reserve < Renewable energy current power multiplied by [2884] 251
Start timer [2885] 251
Stop timer [2886] 251
Stop : Reserve > Renewable energy current power multiplied by [2889] 252
Frequency Global Gain [2900] 252
Frequency Proportional [2901] 253
Frequency Integral [2902] 254
Frequency Derivate [2903] 255
Phase Global Gain [2904] 256
Phase Proportional [2905] 257
Phase Integral [2906] 258
Phase Derivate [2907] 259
kW/Freq Gain [2908] 260
kW/Freq Proportional [2909] 261
kW/Freq Integral [2910] 262
kW/Freq Derivative [2911] 263
Frequency centering [2914] 263
Voltage Global Gain [2950] 264
Voltage Proportional [2951] 265
Voltage Integral [2952] 266
Voltage Derivate [2953] 267
kVAR/Voltage Gain [2954] 268
kVAR/Voltage Proportional [2955] 269
kVAR/Voltage Integral [2956] 270
kVAR/Voltage Derivate [2957] 271
Voltage centering [2958] 272
Off load timer (Only for start with timer) [3478] 272
Pulse frequency dead band [3650] 273
Pulse voltage dead band [3651] 273
Frequency pulse divider [3652] 274
Voltage pulse divider [3653] 274
Bus 275
PT ratio [2150] 275

Nominal voltage [2152] 275
Engine 276
Hide engine measurement [2032] 276
Type of engine speed measurement [2200] 276
Number of teeth for pick-up [2201] 277
Number of pole pairs [2202] 277
Nominal speed [2207] 277
ECU Manufacturer [3100] 278
Units of measurement [3117] 278
External start sequence [3452] 279
External module start failure timer [3453] 279
Pre-start timer (Glow plugs & Auxiliaries) [3456] 279
Maximum holding time of the starter [3457] 280
Delay between each start [3458] 280
Activation order of starters [3459] 280
First starter [3460] 281
Number of attempts per starter [3461] 281
Stop threshold of the first starter [3462] 281
Stop threshold of the second starter [3463] 282
Stop threshold of the third starter [3464] 282
Minimum holding time of the starter [3466] 282
Engine preheat timer (Idle or Nominal speed) [3467] 283
Idle speed [3468] 283
Speed stabilization timer [3469] 283
Cooling timer (Idle or Nominal speed) [3470] 284
Fail to stop engine [3471] 284
Energize to stop hold timer [3472] 284
Cooling fan activation threshold [3475] 285
Engine speed during cooling [3476] 285
Engine type [3477] 285
Engine speed during preheating [3479] 286
Time before ignition [3480] 286
Ignition time on start [3481] 286
Ignition time on stop [3482] 287
CAN bus ECU/ECM 287
ECU ID [3102] 287
COMPACT ID [3103] 287
Enable communication protocol [3118] 288
Secondary ECU ID [3125] 288
Enable secondary ECU [3126] 289
Inputs/outputs 289
Speed governor amplitude [2205] 289

Speed governor offset [2206] 290
Analog output 1 operating mode [2213] 290
Custom setpoint analog output 1 [2214] 291
AVR Amplitude [2251] 291
AVR Offset [2252] 292
Analog output 2 operating mode [2255] 292
Custom setpoint analog output 2 [2256] 293
Validity on analog input 1 [2681] 293
Validity on analog input 2 [2682] 293
Validity on analog input 3 [2683] 294
Polarity NO/NC on AI 1 [2684] 294
Polarity NO/NC on AI 2 [2685] 294
Polarity NO/NC on AI 3 [2686] 295
Delay on AI activation 1 [2687] 295
Delay on AI activation 2 [2688] 295
Delay on AI activation 3 [2689] 296
Timer ON Digital Input 1 [2709] 296
Timer ON Digital Input 2 [2710] 296
Timer ON Digital Input 3 [2711] 297
Timer ON Digital Input 4 [2712] 297
Timer ON Digital Input 5 [2713] 297
Timer ON Digital Input 6 [2714] 298
Timer ON Digital Input 7 [2715] 298
Timer ON Digital Input 8 [2716] 298
Timer ON Digital Input 9 [2717] 299
Timer OFF Digital Input 1 [2718] 299
Timer OFF Digital Input 2 [2719] 299
Timer OFF Digital Input 3 [2720] 300
Timer OFF Digital Input 4 [2721] 300
Timer OFF Digital Input 5 [2722] 300
Timer OFF Digital Input 6 [2723] 301
Timer OFF Digital Input 7 [2724] 301
Timer OFF Digital Input 8 [2725] 301
Timer OFF Digital Input 9 [2726] 302
Validity on digital input 1 [2727] 302
Validity on digital input 2 [2728] 302
Validity on digital input 3 [2729] 303
Validity on digital input 4 [2730] 303
Validity on digital input 5 [2731] 303
Validity on digital input 6 [2732] 304
Validity on digital input 7 [2733] 304
Validity on digital input 8 [2734] 304

Validity on digital input 9 [2735] 305
Polarity NO/NC on DI 1 [2736] 305
Polarity NO/NC on DI 2 [2737] 305
Polarity NO/NC on DI 3 [2738] 306
Polarity NO/NC on DI 4 [2739] 306
Polarity NO/NC on DI 5 [2740] 306
Polarity NO/NC on DI 6 [2741] 307
Polarity NO/NC on DI 7 [2742] 307
Polarity NO/NC on DI 8 [2743] 307
Polarity NO/NC on DI 9 [2744] 308
Polarity NE/ND DO 1 [2751] 308
Polarity NE/ND DO 2 [2752] 308
Polarity NE/ND DO 3 [2753] 309
Polarity NE/ND DO 4 [2754] 309
Polarity NE/ND DO 5 [2755] 309
Polarity NE/ND DO 6 [2756] 310
Direction NO/NC Relay 1 [2759] 310
Direction NO/NC Relay 2 [2760] 310
Pulse length DO 1 [2761] 311
Pulse length DO 2 [2762] 311
Pulse length DO 3 [2763] 311
Pulse length DO 4 [2764] 312
Pulse length DO 5 [2765] 312
Pulse length DO 6 [2766] 312
Pulse length R 1 [2767] 313
Pulse length R 2 [2768] 313
Activation delay DO 01 [2793] 313
Activation delay DO 02 [2794] 314
Activation delay DO 03 [2795] 314
Activation delay DO 04 [2796] 314
Activation delay DO 05 [2797] 315
Activation delay DO 06 [2798] 315
Enable watchdog [3569] 315
Activation delay relay 1 [8250] 316
Activation delay relay 2 [8251] 316
I/O CAN bus expansion 316
CANopenTM I1 [3232] 316
CANopenTM I2 [3233] 317
CANopenTM I3 [3234] 317
CANopenTM I4 [3235] 317
CANopenTM I5 [3236] 318
CANopenTM I6 [3237] 318

CANopenTM I7 [3238] 318
CANopenTM I8 [3239] 319
CANopenTM I9 [3240] 319
CANopenTM I10 [3241] 319
CANopenTM I11 [3242] 320
CANopenTM I12 [3243] 320
CANopenTM I13 [3244] 320
CANopenTM I14 [3245] 321
CANopenTM I15 [3246] 321
CANopenTM I16 [3247] 321
CANopenTM I17 [3248] 322
CANopenTM I18 [3249] 322
CANopenTM I19 [3250] 322
CANopenTM I20 [3251] 323
CANopenTM I21 [3252] 323
CANopenTM I22 [3253] 323
CANopenTM I23 [3254] 324
CANopenTM I24 [3255] 324
CANopenTM I25 [3256] 324
CANopenTM I26 [3257] 325
CANopenTM I27 [3258] 325
CANopenTM I28 [3259] 325
CANopenTM I29 [3260] 326
CANopenTM I30 [3261] 326
CANopenTM I31 [3262] 326
CANopenTM I32 [3263] 327
Validity on CANopen digital input 1 [3264] 327
Validity on CANopen digital input 2 [3265] 327
Validity on CANopen digital input 3 [3266] 328
Validity on CANopen digital input 4 [3267] 328
Validity on CANopen digital input 5 [3268] 328
Validity on CANopen digital input 6 [3269] 329
Validity on CANopen digital input 7 [3270] 329
Validity on CANopen digital input 8 [3271] 329
Validity on CANopen digital input 9 [3272] 330
Validity on CANopen digital input 10 [3273] 330
Validity on CANopen digital input 11 [3274] 330
Validity on CANopen digital input 12 [3275] 331
Validity on CANopen digital input 13 [3276] 331
Validity on CANopen digital input 14 [3277] 331
Validity on CANopen digital input 15 [3278] 332
Validity on CANopen digital input 16 [3279] 332

Validity on CANopen digital input 17 [3280] 332
Validity on CANopen digital input 18 [3281] 333
Validity on CANopen digital input 19 [3282] 333
Validity on CANopen digital input 20 [3283] 333
Validity on CANopen digital input 21 [3284] 334
Validity on CANopen digital input 22 [3285] 334
Validity on CANopen digital input 23 [3286] 334
Validity on CANopen digital input 24 [3287] 335
Validity on CANopen digital input 25 [3288] 335
Validity on CANopen digital input 26 [3289] 335
Validity on CANopen digital input 27 [3290] 336
Validity on CANopen digital input 28 [3291] 336
Validity on CANopen digital input 29 [3292] 336
Validity on CANopen digital input 30 [3293] 337
Validity on CANopen digital input 31 [3294] 337
Validity on CANopen digital input 32 [3295] 337
CANopenDir I1 [3296] 338
CANopenDir I2 [3297] 338
CANopenDir I3 [3298] 338
CANopenDir I4 [3299] 339
CANopenDir I5 [3300] 339
CANopenDir I6 [3301] 339
CANopenDir I7 [3302] 340
CANopenDir I8 [3303] 340
CANopenDir I9 [3304] 340
CANopenDir I10 [3305] 341
CANopenDir I11 [3306] 341
CANopenDir I12 [3307] 341
CANopenDir I13 [3308] 342
CANopenDir I14 [3309] 342
CANopenDir I15 [3310] 342
CANopenDir I16 [3311] 343
CANopenDir I17 [3312] 343
CANopenDir I18 [3313] 343
CANopenDir I19 [3314] 344
CANopenDir I20 [3315] 344
CANopenDir I21 [3316] 344
CANopenDir I22 [3317] 345
CANopenDir I23 [3318] 345
CANopenDir I24 [3319] 345
CANopenDir I25 [3320] 346
CANopenDir I26 [3321] 346

CANopenDir I27 [3322] 346
CANopenDir I28 [3323] 347
CANopenDir I29 [3324] 347
CANopenDir I30 [3325] 347
CANopenDir I31 [3326] 348
CANopenDir I32 [3327] 348
CANopenModeO1 [3382] 348
CANopenModeO2 [3383] 349
CANopenModeO3 [3384] 349
CANopenModeO4 [3385] 349
CANopenModeO5 [3386] 350
CANopenModeO6 [3387] 350
CANopenModeO7 [3388] 350
CANopenModeO8 [3389] 351
CANopenModeO9 [3390] 351
CANopenModeO10 [3391] 351
CANopenModeO11 [3392] 352
CANopenModeO12 [3393] 352
CANopenModeO13 [3394] 352
CANopenModeO14 [3395] 353
CANopenModeO15 [3396] 353
CANopenModeO16 [3397] 353
CANopenModeO17 [3398] 354
CANopenModeO18 [3399] 354
CANopenModeO19 [3400] 354
CANopenModeO20 [3401] 355
CANopenModeO21 [3402] 355
CANopenModeO22 [3403] 355
CANopenModeO23 [3404] 356
CANopenModeO24 [3405] 356
CANopenModeO25 [3406] 356
CANopenModeO26 [3407] 357
CANopenModeO27 [3408] 357
CANopenModeO28 [3409] 357
CANopenModeO29 [3410] 358
CANopenModeO30 [3411] 358
CANopenModeO31 [3412] 358
CANopenModeO32 [3413] 359
CANopen Offset AI 01 [8350] 359
CANopen Gain AI 01 [8351] 359
CANopen Offset AI 02 [8352] 360
CANopen Gain AI 02 [8353] 360

CANopen Offset AI 03 [8354] 360
CANopen Gain AI 03 [8355] 361
CANopen Offset AI 04 [8356] 361
CANopen Gain AI 04 [8357] 361
CANopen Offset AI 05 [8358] 362
CANopen Gain AI 05 [8359] 362
CANopen Offset AI 06 [8360] 362
CANopen Gain AI 06 [8361] 363
CANopen Offset AI 07 [8362] 363
CANopen Gain AI 07 [8363] 363
CANopen Offset AI 08 [8364] 364
CANopen Gain AI 08 [8365] 364
CANopen Offset AI 09 [8366] 364
CANopen Gain AI 09 [8367] 365
CANopen Offset AI 10 [8368] 365
CANopen Gain AI 10 [8369] 365
CANopen Offset AI 11 [8370] 366
CANopen Gain AI 11 [8371] 366
CANopen Offset AI 12 [8372] 366
CANopen Gain AI 12 [8373] 367
CANopen Offset AI 13 [8374] 367
CANopen Gain AI 13 [8375] 367
CANopen Offset AI 14 [8376] 368
CANopen Gain AI 14 [8377] 368
CANopen Offset AI 15 [8378] 368
CANopen Gain AI 15 [8379] 369
CANopen Offset AI 16 [8380] 369
CANopen Gain AI 16 [8381] 369
CANopenTM I33 [8582] 370
CANopenTM I34 [8583] 370
CANopenTM I35 [8584] 370
CANopenTM I36 [8585] 371
CANopenTM I37 [8586] 371
CANopenTM I38 [8587] 371
CANopenTM I39 [8588] 372
CANopenTM I40 [8589] 372
CANopenTM I41 [8590] 372
CANopenTM I42 [8591] 373
CANopenTM I43 [8592] 373
CANopenTM I44 [8593] 373
CANopenTM I45 [8594] 374
CANopenTM I46 [8595] 374

CANopenTM I47 [8596] 374
CANopenTM I48 [8597] 375
CANopenTM I49 [8598] 375
CANopenTM I50 [8599] 375
CANopenTM I51 [8600] 376
CANopenTM I52 [8601] 376
CANopenTM I53 [8602] 376
CANopenTM I54 [8603] 377
CANopenTM I55 [8604] 377
CANopenTM I56 [8605] 377
CANopenTM I57 [8606] 378
CANopenTM I58 [8607] 378
CANopenTM I59 [8608] 378
CANopenTM I60 [8609] 379
CANopenTM I61 [8610] 379
CANopenTM I62 [8611] 379
CANopenTM I63 [8612] 380
CANopenTM I64 [8613] 380
Validity on CANopen digital input 33 [8614] 380
Validity on CANopen digital input 34 [8615] 381
Validity on CANopen digital input 35 [8616] 381
Validity on CANopen digital input 36 [8617] 381
Validity on CANopen digital input 37 [8618] 382
Validity on CANopen digital input 38 [8619] 382
Validity on CANopen digital input 39 [8620] 382
Validity on CANopen digital input 40 [8621] 383
Validity on CANopen digital input 41 [8622] 383
Validity on CANopen digital input 42 [8623] 383
Validity on CANopen digital input 43 [8624] 384
Validity on CANopen digital input 44 [8625] 384
Validity on CANopen digital input 45 [8626] 384
Validity on CANopen digital input 46 [8627] 385
Validity on CANopen digital input 47 [8628] 385
Validity on CANopen digital input 48 [8629] 385
Validity on CANopen digital input 49 [8630] 386
Validity on CANopen digital input 50 [8631] 386
Validity on CANopen digital input 51 [8632] 386
Validity on CANopen digital input 52 [8633] 387
Validity on CANopen digital input 53 [8634] 387
Validity on CANopen digital input 54 [8635] 387
Validity on CANopen digital input 55 [8636] 388
Validity on CANopen digital input 56 [8637] 388

Validity on CANopen digital input 57 [8638] 388
Validity on CANopen digital input 58 [8639] 389
Validity on CANopen digital input 59 [8640] 389
Validity on CANopen digital input 60 [8641] 389
Validity on CANopen digital input 61 [8642] 390
Validity on CANopen digital input 62 [8643] 390
Validity on CANopen digital input 63 [8644] 390
Validity on CANopen digital input 64 [8645] 391
CANopenDir I33 [8646] 391
CANopenDir I34 [8647] 391
CANopenDir I35 [8648] 392
CANopenDir I36 [8649] 392
CANopenDir I37 [8650] 392
CANopenDir I38 [8651] 393
CANopenDir I39 [8652] 393
CANopenDir I40 [8653] 393
CANopenDir I41 [8654] 394
CANopenDir I42 [8655] 394
CANopenDir I43 [8656] 394
CANopenDir I44 [8657] 395
CANopenDir I45 [8658] 395
CANopenDir I46 [8659] 395
CANopenDir I47 [8660] 396
CANopenDir I48 [8661] 396
CANopenDir I49 [8662] 396
CANopenDir I50 [8663] 397
CANopenDir I51 [8664] 397
CANopenDir I52 [8665] 397
CANopenDir I53 [8666] 398
CANopenDir I54 [8667] 398
CANopenDir I55 [8668] 398
CANopenDir I56 [8669] 399
CANopenDir I57 [8670] 399
CANopenDir I58 [8671] 399
CANopenDir I59 [8672] 400
CANopenDir I60 [8673] 400
CANopenDir I61 [8674] 400
CANopenDir I62 [8675] 401
CANopenDir I63 [8676] 401
CANopenDir I64 [8677] 401
CANopenModeO33 [8732] 402
CANopenModeO34 [8733] 402

CANopenModeO35 [8734] 402
CANopenModeO36 [8735] 403
CANopenModeO37 [8736] 403
CANopenModeO38 [8737] 403
CANopenModeO39 [8738] 404
CANopenModeO40 [8739] 404
CANopenModeO41 [8740] 404
CANopenModeO42 [8741] 405
CANopenModeO43 [8742] 405
CANopenModeO44 [8743] 405
CANopenModeO45 [8744] 406
CANopenModeO46 [8745] 406
CANopenModeO47 [8746] 406
CANopenModeO48 [8747] 407
CANopenModeO49 [8748] 407
CANopenModeO50 [8749] 407
CANopenModeO51 [8750] 408
CANopenModeO52 [8751] 408
CANopenModeO53 [8752] 408
CANopenModeO54 [8753] 409
CANopenModeO55 [8754] 409
CANopenModeO56 [8755] 409
CANopenModeO57 [8756] 410
CANopenModeO58 [8757] 410
CANopenModeO59 [8758] 410
CANopenModeO60 [8759] 411
CANopenModeO61 [8760] 411
CANopenModeO62 [8761] 411
CANopenModeO63 [8762] 412
CANopenModeO64 [8763] 412
Timers/meters 412
Delay before activation of the protections [2004] 412
Test mode duration [2016] 413
Waiting for deexcitation timer [2051] 413
Voltage stabilization timer [2056] 414
Unexpected stop timer [2203] 414
Load ramp timer [2853] 414
Unload ramp timer [2856] 415
Power Plant 415
Number of GENSYS COMPACT PRIME [2000] 415
My number [2001] 416
Connection type [2003] 417

Number of MASTER COMPACT/BTB COMPACT [2017] 417
Segment number [2020] 418
Number of HYBRID COMPACT [2025] 418
Number of BAT COMPACT [2030] 418
Fail to open/close breaker timer [2304] 419
Unexpected close/open breaker timer [2317] 419
Start/Stop priority criteria [2850] 420
kW threshold to start a generator [2854] 420
kW threshold to stop a generator [2857] 421
Delay between 2 openings (for manual opening request only) [2861] 421
Action after last opening [2862] 421
Custom number [2863] 422
Hour [2865] 422
Load dependent start/stop mode [2879] 423
Reserve power (%) threshold to start a generator [2880] 423
Reserve power (kW) threshold to start a generator [2881] 424
Enable hours dependant start/stop [2882] 424
Reserve power (%) threshold to stop a generator [2887] 425
Reserve power (kW) threshold to stop a generator [2888] 425
Generators start type on powered bus [2892] 426
Generators start type on deadbus [2894] 426
Slave controller number [3070] 426
Reserve kW threshold 1 [3703] 427
Reserve kW threshold 2 [3704] 427
Load shedding [3705] 427
Timer for threshold 1 [3706] 428
Timer for threshold 2 [3707] 428
Delay before closing [3720] 428
Automatic load reconnection [3730] 429
Maximum kW load 1 [3731] 429
Maximum kW load 2 [3732] 429
Maximum kW load 3 [3733] 430
Maximum kW load 4 [3734] 430
Maximum kW load 5 [3735] 430
Maximum kW load 6 [3736] 431
Maximum kW load 7 [3737] 431
Maximum kW load 8 [3738] 431
Maximum kW load 9 [3739] 432
Maximum kW load 10 [3740] 432
Number of load [3741] 432
Generator protections 433
Timer Min Max Speed output [2389] 433

Control Min Max Speed output [2390] 433
Timer Min Max AVR output [2391] 433
Control Min Max AVR output [2392] 434
Out of speed range timer [2393] 434
Out of speed range control [2394] 434
Out of voltage range timer [2395] 435
Out of voltage range control [2396] 435
Mismatch rotophases protection control [2397] 435
Over frequency threshold [2400] 436
Over frequency timer [2401] 436
Over frequency control [2402] 436
Under frequency threshold [2403] 437
Under frequency timer [2404] 437
Under frequency control [2405] 437
Over voltage threshold [2406] 438
Over voltage timer [2407] 438
Over voltage control [2408] 438
Under voltage threshold [2409] 439
Under voltage timer [2410] 439
Under voltage control [2411] 439
Minimum kW threshold [2412] 440
Minimum kW timer [2413] 440
Minimum kW control [2414] 440
Maximum kW threshold [2415] 441
Maximum kW timer [2416] 441
Maximum kW control [2417] 441
Reverse kW threshold [2418] 442
Reverse kW timer [2419] 442
Reverse kW control [2420] 442
Minimum kVAR threshold [2421] 443
Minimum kVAR timer [2422] 443
Minimum kVAR control [2423] 443
Maximum kVAR threshold [2424] 444
Maximum kVAR timer [2425] 444
Maximum kVAR control [2426] 444
Reverse kVAR threshold [2427] 445
Reverse kVAR timer [2428] 445
Reverse kVAR control [2429] 445
Over current threshold [2430] 446
Over current timer [2431] 446
Over current control [2432] 446
Neutral current threshold [2433] 447

Neutral current timer [2434] 447
Neutral current control [2435] 447
Over frequency threshold 2 [2436] 448
Over frequency timer 2 [2437] 448
Over frequency control 2 [2438] 448
Under frequency threshold 2 [2439] 449
Under frequency timer 2 [2440] 449
Under frequency control 2 [2441] 449
Over voltage threshold 2 [2442] 450
Over voltage timer 2 [2443] 450
Over voltage control 2 [2444] 450
Under voltage threshold 2 [2445] 451
Under voltage timer 2 [2446] 451
Under voltage control 2 [2447] 451
Minimum kW threshold 2 [2448] 452
Minimum kW timer 2 [2449] 452
Minimum kW control 2 [2450] 452
Maximum kW threshold 2 [2451] 453
Maximum kW timer 2 [2452] 453
Maximum kW control 2 [2453] 453
Reverse kW threshold 2 [2454] 454
Reverse kW timer 2 [2455] 454
Reverse kW control 2 [2456] 454
Minimum kVAR threshold 2 [2457] 455
Minimum kVAR timer 2 [2458] 455
Minimum kVAR control 2 [2459] 455
Maximum kVAR threshold 2 [2460] 456
Maximum kVAR timer 2 [2461] 456
Maximum kVAR control 2 [2462] 456
Reverse kVAR threshold 2 [2463] 457
Reverse kVAR timer 2 [2464] 457
Reverse kVAR control 2 [2465] 457
Over current threshold 2 [2466] 458
Over current timer 2 [2467] 458
Over current control 2 [2468] 458
Neutral current threshold 2 [2469] 459
Neutral current timer 2 [2470] 459
Neutral current control 2 [2471] 459
Short Circuit K constant characteristic [2472] 460
Short Circuit C constant characteristic [2473] 460
Short Circuit Alpha constant characteristic [2474] 460
Short Circuit TMS (Time Multiplier Setting) [2475] 461

Short Circuit Is constant [2476] 461
Generator Short Circuit Control [2477] 461
Horn timer [2478] 462
Earth fault threshold [2479] 462
Earth fault timer [2480] 462
Earth fault control [2481] 463
Earth fault threshold 2 [2482] 463
Earth fault timer 2 [2483] 463
Earth fault control 2 [2484] 464
Earth Current CT ratio [2485] 464
Voltage unbalance threshold [2486] 464
Voltage unbalance timer [2487] 465
Voltage unbalance control [2488] 465
Voltage unbalance threshold 2 [2489] 465
Voltage unbalance timer 2 [2490] 466
Voltage unbalance control 2 [2491] 466
Current unbalance threshold [2492] 466
Current unbalance timer [2493] 467
Current unbalance control [2494] 467
Current unbalance threshold 2 [2495] 467
Current unbalance timer 2 [2496] 468
Current unbalance control 2 [2497] 468
Curve type [2498] 469
Threshold uneven kW [3708] 469
Timer uneven kW [3709] 470
Control uneven kW [3710] 470
Threshold uneven kVAR [3711] 470
Timer uneven kVAR [3712] 471
Control uneven kVAR [3713] 471
Rotophase activation direction (0 = Indirect, 1 = Direct) [8500] 471
Rotophase protection control [8501] 472
Bus protections 472
Over frequency threshold [2500] 472
Over frequency timer [2501] 473
Over frequency control [2502] 473
Under frequency threshold [2503] 473
Under frequency timer [2504] 474
Under frequency control [2505] 474
Over voltage threshold [2506] 474
Over voltage timer [2507] 475
Over voltage control [2508] 475
Under voltage threshold [2509] 475

Under voltage timer [2510] 476
Under voltage control [2511] 476
Over frequency threshold 2 [2530] 476
Over frequency timer 2 [2531] 477
Over frequency control 2 [2532] 477
Under frequency threshold 2 [2533] 477
Under frequency timer 2 [2534] 478
Under frequency control 2 [2535] 478
Over voltage threshold 2 [2536] 478
Over voltage timer 2 [2537] 479
Over voltage control 2 [2538] 479
Under voltage threshold 2 [2539] 479
Under voltage timer 2 [2540] 480
Under voltage control 2 [2541] 480
Voltage unbalance threshold [2565] 480
Voltage unbalance timer [2566] 481
Voltage unbalance control [2567] 481
Voltage unbalance threshold 2 [2568] 481
Voltage unbalance timer 2 [2569] 482
Voltage unbalance control 2 [2570] 482
Bus Bar measure error inhibition [2571] 482
Rotophase activation direction (0 = Indirect, 1 = Direct) [2584] 483
Rotophase protection control [2585] 483
Engine protections 484
Over speed threshold [2350] 484
Over speed timer [2351] 484
Over speed control [2352] 484
Under speed threshold [2353] 485
Under speed timer [2354] 485
Under speed control [2355] 485
Min. voltage battery threshold [2356] 486
Min. voltage battery timer [2357] 486
Min. voltage battery control [2358] 486
Max. voltage battery threshold [2359] 487
Max. voltage battery timer [2360] 487
Max. voltage battery control [2361] 487
Oil pressure threshold [2362] 488
Oil pressure timer [2363] 488
Oil pressure control [2364] 488
Water temperature threshold [2365] 489
Water temperature timer [2366] 489
Water temperature control [2367] 489

Over speed threshold 2 [2368] 490
Over speed timer 2 [2369] 490
Over speed control 2 [2370] 490
Under speed threshold 2 [2371] 491
Under speed timer 2 [2372] 491
Under speed control 2 [2373] 491
Min. voltage battery threshold 2 [2374] 492
Min. voltage battery timer 2 [2375] 492
Min. voltage battery control 2 [2376] 492
Max. voltage battery threshold 2 [2377] 493
Max. voltage battery timer 2 [2378] 493
Max. voltage battery control 2 [2379] 493
Oil pressure threshold 2 [2380] 494
Oil pressure timer 2 [2381] 494
Oil pressure control 2 [2382] 494
Water temperature threshold 2 [2383] 495
Water temperature timer 2 [2384] 495
Water temperature control 2 [2385] 495
Low threshold boost battery [2386] 496
High threshold boost battery [2387] 496
Control boost battery [2388] 496
Analog input 1 threshold [2600] 497
Analog input 1 timer [2601] 497
Analog input 1 control [2602] 497
Analog input 1 threshold 2 [2603] 498
Analog input 1 timer 2 [2604] 498
Analog input 1 control 2 [2605] 498
Direction analog input 1 protection [2606] 499
Analog input 2 threshold [2608] 499
Analog input 2 timer [2609] 499
Analog input 2 control [2610] 500
Analog input 2 threshold 2 [2611] 500
Analog input 2 timer 2 [2612] 500
Analog input 2 control 2 [2613] 501
Direction analog input 2 protection [2614] 501
Analog input 3 threshold [2616] 501
Analog input 3 timer [2617] 502
Analog input 3 control [2618] 502
Analog input 3 threshold 2 [2619] 502
Analog input 3 timer 2 [2620] 503
Analog input 3 control 2 [2621] 503
Direction analog input 3 protection [2622] 503

Control on Malfunction Indicator Lamp [3110] 504
Control on Protection Lamp [3111] 504
Control on Amber Warning Lamp [3112] 504
Control on Red Stop Lamp [3113] 505
Control on Combined Alarm Yellow [3121] 505
Control on Combined Alarm Red [3122] 505
Control on HEST Lamp [3127] 506
Control on SCR Lamp [3128] 506
Control on DEF Lamp [3129] 506
Control on Inhibited Lamp [3130] 507
Control on Wait to start Lamp [3131] 507
Control on DPF Lamp [3132] 507
Timer before Malfunction Lamp Error [3133] 508
Timer before Protection Lamp Error [3134] 508
Timer before Amber Warning Lamp Error [3135] 508
Timer before Red stop Lamp Error [3136] 509
Timer before Wait To Start Lamp Error [3137] 509
Timer before DPF Lamp Error [3138] 509
Timer before HEST Lamp Error [3139] 510
Timer before SCR Lamp Error [3140] 510
Timer before DEF Lamp Error [3141] 510
Timer before Inhibited Lamp Error [3142] 511

Communication 511

Inhibition remote start from CAN [2018] 511
Starting on loss of communication with MASTER COMPACT [2019] 511
Starting on loss of communication with BAT COMPACT [2046] 512
Control on Modbus server timeouts [3030] 512
Enable connection to Modbus server [3031] 512
Modbus server frame timeout [3032] 513
CAN 1 baud rate [3050] 513
CAN 2 baud rate [3051] 514
Control on controllers communication fault [3052] 514
Control on missing GENSYS COMPACT PRIME on CAN bus [3054] 515
Control on missing MASTER COMPACT/BTB COMPACT on CAN bus [3057] 515
Control on ECU error [3058] 515
Control on CANopen error [3059] 516
Control on missing HYBRID COMPACT on CAN bus [3060] 516
Control on missing BAT COMPACT on CAN bus [3061] 516
Timer before ECU error [3116] 517
Enable J1939 sniffer [3119] 517
TSC1 Message counter [3123] 518
TSC1 Message checksum [3124] 518

CANopen error timer [3152] 518
Saved user variables 519
Saved var. 1 (Customisable) [8000] 519
Saved var. 2 (Customisable) [8001] 519
Saved var. 3 (Customisable) [8002] 519
Saved var. 4 (Customisable) [8003] 520
Saved var. 5 (Customisable) [8004] 520
Saved var. 6 (Customisable) [8005] 520
Saved var. 7 (Customisable) [8006] 521
Saved var. 8 (Customisable) [8007] 521
Saved var. 9 (Customisable) [8008] 521
Saved var. 10 (Customisable) [8009] 522
Saved var. 11 (Customisable) [8010] 522
Saved var. 12 (Customisable) [8011] 522
Saved var. 13 (Customisable) [8012] 523
Saved var. 14 (Customisable) [8013] 523
Saved var. 15 (Customisable) [8014] 523
Saved var. 16 (Customisable) [8015] 524
Saved var. 17 (Customisable) [8016] 524
Saved var. 18 (Customisable) [8017] 524
Saved var. 19 (Customisable) [8018] 525
Saved var. 20 (Customisable) [8019] 525
Saved var. 21 (Customisable) [8020] 525
Saved var. 22 (Customisable) [8021] 526
Saved var. 23 (Customisable) [8022] 526
Saved var. 24 (Customisable) [8023] 526
Saved var. 25 (Customisable) [8024] 527
Saved var. 26 (Customisable) [8025] 527
Saved var. 27 (Customisable) [8026] 527
Saved var. 28 (Customisable) [8027] 528
Saved var. 29 (Customisable) [8028] 528
Saved var. 30 (Customisable) [8029] 528
Saved var. 31 (Customisable) [8030] 529
Saved var. 32 (Customisable) [8031] 529
Saved var. 33 (Customisable) [8032] 529
Saved var. 34 (Customisable) [8033] 530
Saved var. 35 (Customisable) [8034] 530
Saved var. 36 (Customisable) [8035] 530
Saved var. 37 (Customisable) [8036] 531
Saved var. 38 (Customisable) [8037] 531
Saved var. 39 (Customisable) [8038] 531
Saved var. 40 (Customisable) [8039] 532

Saved var. 41 (Customisable) [8040] 532
Saved var. 42 (Customisable) [8041] 532
Saved var. 43 (Customisable) [8042] 533
Saved var. 44 (Customisable) [8043] 533
Saved var. 45 (Customisable) [8044] 533
Saved var. 46 (Customisable) [8045] 534
Saved var. 47 (Customisable) [8046] 534
Saved var. 48 (Customisable) [8047] 534
Saved var. 49 (Customisable) [8048] 535
Saved var. 50 (Customisable) [8049] 535
Unsaved user variables 535
Unsaved var.1 (Customisable) [8050] 535
Unsaved var.2 (Customisable) [8051] 536
Unsaved var.3 (Customisable) [8052] 536
Unsaved var.4 (Customisable) [8053] 536
Unsaved var.5 (Customisable) [8054] 537
Unsaved var.6 (Customisable) [8055] 537
Unsaved var.7 (Customisable) [8056] 537
Unsaved var.8 (Customisable) [8057] 538
Unsaved var.9 (Customisable) [8058] 538
Unsaved var.10 (Customisable) [8059] 538
Unsaved var.11 (Customisable) [8060] 539
Unsaved var.12 (Customisable) [8061] 539
Unsaved var.13 (Customisable) [8062] 539
Unsaved var.14 (Customisable) [8063] 540
Unsaved var.15 (Customisable) [8064] 540
Unsaved var.16 (Customisable) [8065] 540
Unsaved var.17 (Customisable) [8066] 541
Unsaved var.18 (Customisable) [8067] 541
Unsaved var.19 (Customisable) [8068] 541
Unsaved var.20 (Customisable) [8069] 542
Unsaved var.21 (Customisable) [8070] 542
Unsaved var.22 (Customisable) [8071] 542
Unsaved var.23 (Customisable) [8072] 543
Unsaved var.24 (Customisable) [8073] 543
Unsaved var.25 (Customisable) [8074] 543
Unsaved var.26 (Customisable) [8075] 544
Unsaved var.27 (Customisable) [8076] 544
Unsaved var.28 (Customisable) [8077] 544
Unsaved var.29 (Customisable) [8078] 545
Unsaved var.30 (Customisable) [8079] 545
Unsaved var.31 (Customisable) [8080] 545

Unsaved var.32 (Customisable) [8081] 546
Unsaved var.33 (Customisable) [8082] 546
Unsaved var.34 (Customisable) [8083] 546
Unsaved var.35 (Customisable) [8084] 547
Unsaved var.36 (Customisable) [8085] 547
Unsaved var.37 (Customisable) [8086] 547
Unsaved var.38 (Customisable) [8087] 548
Unsaved var.39 (Customisable) [8088] 548
Unsaved var.40 (Customisable) [8089] 548
Unsaved var.41 (Customisable) [8090] 549
Unsaved var.42 (Customisable) [8091] 549
Unsaved var.43 (Customisable) [8092] 549
Unsaved var.44 (Customisable) [8093] 550
Unsaved var.45 (Customisable) [8094] 550
Unsaved var.46 (Customisable) [8095] 550
Unsaved var.47 (Customisable) [8096] 551
Unsaved var.48 (Customisable) [8097] 551
Unsaved var.49 (Customisable) [8098] 551
Unsaved var.50 (Customisable) [8099] 552
System 552
Power on mode [2012] 552
Test mode operation [2014] 553
Limited time test mode [2015] 553
Synchronization & Load sharing only [2024] 554
Static paralleling [2050] 554
Excitation voltage threshold [2054] 555
Master controller number [3064] 555
Controller role [3065] 555
Enable redundancy [3069] 556
Screensaver timeout [3551] 556
Backlight timeout [3552] 556
LCD screen contrast [3554] 557
LCD screen backlight [3555] 557
Variable 1 to log [3600] 557
Variable 2 to log [3601] 558
Variable 3 to log [3602] 558
Variable 4 to log [3603] 558
Variable 5 to log [3604] 559
Variable 6 to log [3605] 559
Variable 7 to log [3606] 559
Variable 8 to log [3607] 560
Variable 9 to log [3608] 560

Variable 10 to log [3609] 560
Activation [3610] 561
Erase logger [3611] 561
Logging period variable 1 [3612] 561
Logging period variable 2 [3613] 562
Logging period variable 3 [3614] 562
Logging period variable 4 [3615] 562
Logging period variable 5 [3616] 563
Logging period variable 6 [3617] 563
Logging period variable 7 [3618] 563
Logging period variable 8 [3619] 564
Logging period variable 9 [3620] 564
Logging period variable 10 [3621] 564
Log variable 1 on [3622] 565
Log variable 2 on [3623] 565
Log variable 3 on [3624] 565
Log variable 4 on [3625] 566
Log variable 5 on [3626] 566
Log variable 6 on [3627] 566
Log variable 7 on [3628] 567
Log variable 8 on [3629] 567
Log variable 9 on [3630] 567
Log variable 10 on [3631] 568
Record power up [8300] 568
Record engine status (Start/Stop) [8301] 568
Record circuit breaker status (Open/Closed) [8303] 569
Record operating mode [8304] 569
Hysteresis 569
Enable Hysteresis 1 [2657] 569
Enable Hysteresis 2 [2658] 570
Enable Hysteresis 3 [2659] 570
Low level threshold [2660] 570
Low level threshold [2661] 571
Low level threshold [2662] 571
High level threshold [2663] 571
High level threshold [2664] 572
High level threshold [2665] 572
Timer on low level threshold [2666] 572
Timer on low level threshold [2667] 573
Timer on low level threshold [2668] 573
Timer on high level threshold [2669] 573
Timer on high level threshold [2670] 574

Timer on high level threshold [2671] 574
Hysteresis Direction 1 [2672] 574
Hysteresis Direction 2 [2673] 575
Hysteresis Direction 3 [2674] 575
Hysteresis 1 enable for digital input [2769] 575
Hysteresis 2 enable for digital input [2770] 576
Hysteresis 3 enable for digital input [2771] 576
Hysteresis 4 enable for digital input [2772] 577
Hysteresis 5 enable for digital input [2773] 577
Hysteresis 6 enable for digital input [2774] 578
Hysteresis 7 enable for digital input [2775] 578
Hysteresis 8 enable for digital input [2776] 579
Timer ON hysteresis 1 [2777] 579
Timer ON hysteresis 2 [2778] 579
Timer ON hysteresis 3 [2779] 580
Timer ON hysteresis 4 [2780] 580
Timer ON hysteresis 5 [2781] 580
Timer ON hysteresis 6 [2782] 581
Timer ON hysteresis 7 [2783] 581
Timer ON hysteresis 8 [2784] 581
Direction hysteresis 1 [2785] 582
Direction hysteresis 2 [2786] 582
Direction hysteresis 3 [2787] 583
Direction hysteresis 4 [2788] 583
Direction hysteresis 5 [2789] 584
Direction hysteresis 6 [2790] 584
Direction hysteresis 7 [2791] 585
Direction hysteresis 8 [2792] 585
CAN bus settings 586
Master redundancy alarm [3066] 586
Slave rendundancy alarm [3067] 586

Digital input functions 587
Generator 587
Generator breaker feedback [4501] 587
Remote start on load [4502] 587
Generator ready [4523] 588
Start inhibition [4524] 588
Safety inhibition mode (NFE37312) [4610] 589
Remote start off load [4611] 589
Remote start with timer [4612] 589
Engine 590

Preglow request [4534] 590
CAN bus ECU/ECM 590
Inhibition switch for Aftertreatment regeneration [4643] 590
Force switch for Aftertreatment regeneration [4644] 590
Inputs/outputs 591
Digital output 1 forced [4630] 591
Digital output 2 forced [4631] 591
Digital output 3 forced [4632] 591
Digital output 4 forced [4633] 592
Digital output 5 forced [4634] 592
Digital output 6 forced [4635] 592
Relay 1 forced [4950] 593
Relay 2 forced [4951] 593
Power Plant 593
External non essential trip request [4537] 593
Priority generator [4538] 594
Unload generator if load-dependent start-stop rules OK [4543] 594
Start all generators [4640] 594
Slave in service input [4645] 595
Master Return [4646] 595
Watchdog input [4647] 595
Alternative selections 596
Alternative selection 1 [4594] 596
Alternative selection 2 [4595] 596
Alternative selection 3 [4596] 596
Alternative selection 4 [4597] 597
Alternative selection 5 [4598] 597
Alternative selection 6 [4599] 597
Alternative selection 7 [4600] 598
Alternative selection 8 [4601] 598
Alternative selection 9 [4602] 598
Alternative selection 10 [4603] 599
Alternative selection 11 [4604] 599
Alternative selection 12 [4605] 599
Alternative selection 13 [4606] 600
Alternative selection 14 [4607] 600
Alternative selection 15 [4608] 600
Alternative selection 16 [4609] 601
Hysteresis 601
Hysteresis low threshold DI1 [4614] 601
Hysteresis low threshold DI2 [4615] 601
Hysteresis low threshold DI3 [4616] 602

Hysteresis low threshold DI4 [4617] 602
Hysteresis low threshold DI5 [4618] 602
Hysteresis low threshold DI6 [4619] 603
Hysteresis low threshold DI7 [4620] 603
Hysteresis low threshold DI8 [4621] 603
Hysteresis high threshold DI1 [4622] 604
Hysteresis high threshold DI2 [4623] 604
Hysteresis high threshold DI3 [4624] 604
Hysteresis high threshold DI4 [4625] 605
Hysteresis high threshold DI5 [4626] 605
Hysteresis high threshold DI6 [4627] 605
Hysteresis high threshold DI7 [4628] 606
Hysteresis high threshold DI8 [4629] 606
Remote buttons 606
Faults acknowledge [4506] 606
Manual start request [4509] 607
Manual stop request [4510] 607
Manual mode request [4511] 607
Manual mode inhibition [4512] 608
Auto mode request [4513] 608
Increase speed in manual mode [4514] 608
Decrease speed in manual mode [4515] 609
Increase voltage in manual mode [4516] 609
Decrease voltage in manual mode [4517] 609
Generator breaker opening in manual mode [4518] 610
Generator breaker closing in manual mode [4520] 610
Stop horn [4530] 610
Led test [4580] 611
Test mode request [4590] 611

Bitfields 612
Inputs/outputs 612
Physical status of digital input 1 [953.0] 612
Physical status of digital input 2 [953.1] 612
Physical status of digital input 3 [953.2] 612
Physical status of digital input 4 [953.3] 612
Physical status of digital input 5 [953.4] 612
Physical status of digital input 6 [953.5] 613
Physical status of digital input 7 [953.6] 613
Physical status of digital input 8 [953.7] 613
Physical status of digital input 9 [953.8] 613
Digital input 1 [954.0] 613

Digital input 2 [954.1] 613
Digital input 3 [954.2] 614
Digital input 4 [954.3] 614
Digital input 5 [954.4] 614
Digital input 6 [954.5] 614
Digital input 7 [954.6] 614
Digital input 8 [954.7] 614
Digital input 9 [954.8] 614
Analog input 1 setup as digital input [954.9] 615
Analog input 2 setup as digital input [954.10] 615
Analog input 3 setup as digital input [954.11] 615
Digital output 1 [957.0] 615
Digital output 2 [957.1] 615
Digital output 3 [957.2] 615
Digital output 4 [957.3] 616
Digital output 5 [957.4] 616
Digital output 6 [957.5] 616
Relay 1 [957.6] 616
Relay 2 [957.7] 616
I/O CAN bus expansion 616
CANopen digital Input 1 [955.0] 616
CANopen digital Input 2 [955.1] 617
CANopen digital Input 3 [955.2] 617
CANopen digital Input 4 [955.3] 617
CANopen digital Input 5 [955.4] 617
CANopen digital Input 6 [955.5] 617
CANopen digital Input 7 [955.6] 617
CANopen digital Input 8 [955.7] 617
CANopen digital Input 9 [955.8] 618
CANopen digital Input 10 [955.9] 618
CANopen digital Input 11 [955.10] 618
CANopen digital Input 12 [955.11] 618
CANopen digital Input 13 [955.12] 618
CANopen digital Input 14 [955.13] 618
CANopen digital Input 15 [955.14] 618
CANopen digital Input 16 [955.15] 619
CANopen digital Input 17 [956.0] 619
CANopen digital Input 18 [956.1] 619
CANopen digital Input 19 [956.2] 619
CANopen digital Input 20 [956.3] 619
CANopen digital Input 21 [956.4] 619
CANopen digital Input 22 [956.5] 620

CANopen digital Input 23 [956.6] 620
CANopen digital Input 24 [956.7] 620
CANopen digital Input 25 [956.8] 620
CANopen digital Input 26 [956.9] 620
CANopen digital Input 27 [956.10] 620
CANopen digital Input 28 [956.11] 620
CANopen digital Input 29 [956.12] 621
CANopen digital Input 30 [956.13] 621
CANopen digital Input 31 [956.14] 621
CANopen digital Input 32 [956.15] 621
CANopen digital Output 1 [958.0] 621
CANopen digital Output 2 [958.1] 621
CANopen digital Output 3 [958.2] 622
CANopen digital Output 4 [958.3] 622
CANopen digital Output 5 [958.4] 622
CANopen digital Output 6 [958.5] 622
CANopen digital Output 7 [958.6] 622
CANopen digital Output 8 [958.7] 622
CANopen digital Output 9 [958.8] 622
CANopen digital Output 10 [958.9] 623
CANopen digital Output 11 [958.10] 623
CANopen digital Output 12 [958.11] 623
CANopen digital Output 13 [958.12] 623
CANopen digital Output 14 [958.13] 623
CANopen digital Output 15 [958.14] 623
CANopen digital Output 16 [958.15] 623
CANopen digital Output 17 [959.0] 624
CANopen digital Output 18 [959.1] 624
CANopen digital Output 19 [959.2] 624
CANopen digital Output 20 [959.3] 624
CANopen digital Output 21 [959.4] 624
CANopen digital Output 22 [959.5] 624
CANopen digital Output 23 [959.6] 625
CANopen digital Output 24 [959.7] 625
CANopen digital Output 25 [959.8] 625
CANopen digital Output 26 [959.9] 625
CANopen digital Output 27 [959.10] 625
CANopen digital Output 28 [959.11] 625
CANopen digital Output 29 [959.12] 625
CANopen digital Output 30 [959.13] 626
CANopen digital Output 31 [959.14] 626
CANopen digital Output 32 [959.15] 626

CANopen digital Input 33 [978.0] 626
CANopen digital Input 34 [978.1] 626
CANopen digital Input 35 [978.2] 626
CANopen digital Input 36 [978.3] 626
CANopen digital Input 37 [978.4] 627
CANopen digital Input 38 [978.5] 627
CANopen digital Input 39 [978.6] 627
CANopen digital Input 40 [978.7] 627
CANopen digital Input 41 [978.8] 627
CANopen digital Input 42 [978.9] 627
CANopen digital Input 43 [978.10] 627
CANopen digital Input 44 [978.11] 628
CANopen digital Input 45 [978.12] 628
CANopen digital Input 46 [978.13] 628
CANopen digital Input 47 [978.14] 628
CANopen digital Input 48 [978.15] 628
CANopen digital Input 49 [979.0] 628
CANopen digital Input 50 [979.1] 628
CANopen digital Input 51 [979.2] 629
CANopen digital Input 52 [979.3] 629
CANopen digital Input 53 [979.4] 629
CANopen digital Input 54 [979.5] 629
CANopen digital Input 55 [979.6] 629
CANopen digital Input 56 [979.7] 629
CANopen digital Input 57 [979.8] 629
CANopen digital Input 58 [979.9] 630
CANopen digital Input 59 [979.10] 630
CANopen digital Input 60 [979.11] 630
CANopen digital Input 61 [979.12] 630
CANopen digital Input 62 [979.13] 630
CANopen digital Input 63 [979.14] 630
CANopen digital Input 64 [979.15] 630
CANopen digital Output 33 [980.0] 631
CANopen digital Output 34 [980.1] 631
CANopen digital Output 35 [980.2] 631
CANopen digital Output 36 [980.3] 631
CANopen digital Output 37 [980.4] 631
CANopen digital Output 38 [980.5] 631
CANopen digital Output 39 [980.6] 631
CANopen digital Output 40 [980.7] 632
CANopen digital Output 41 [980.8] 632
CANopen digital Output 42 [980.9] 632

CANopen digital Output 43 [980.10] 632
CANopen digital Output 44 [980.11] 632
CANopen digital Output 45 [980.12] 632
CANopen digital Output 46 [980.13] 632
CANopen digital Output 47 [980.14] 633
CANopen digital Output 48 [980.15] 633
CANopen digital Output 49 [981.0] 633
CANopen digital Output 50 [981.1] 633
CANopen digital Output 51 [981.2] 633
CANopen digital Output 52 [981.3] 633
CANopen digital Output 53 [981.4] 633
CANopen digital Output 54 [981.5] 634
CANopen digital Output 55 [981.6] 634
CANopen digital Output 56 [981.7] 634
CANopen digital Output 57 [981.8] 634
CANopen digital Output 58 [981.9] 634
CANopen digital Output 59 [981.10] 634
CANopen digital Output 60 [981.11] 634
CANopen digital Output 61 [981.12] 635
CANopen digital Output 62 [981.13] 635
CANopen digital Output 63 [981.14] 635
CANopen digital Output 64 [981.15] 635
Power Plant 635
Generator No.1 circuit breaker position [562.0] 635
Generator No.2 circuit breaker position [562.1] 635
Generator No.3 circuit breaker position [562.2] 636
Generator No.4 circuit breaker position [562.3] 636
Generator No.5 circuit breaker position [562.4] 636
Generator No.6 circuit breaker position [562.5] 636
Generator No.7 circuit breaker position [562.6] 636
Generator No.8 circuit breaker position [562.7] 636
Generator No.9 circuit breaker position [562.8] 636
Generator No.10 circuit breaker position [562.9] 637
Generator No.11 circuit breaker position [562.10] 637
Generator No.12 circuit breaker position [562.11] 637
Generator No.13 circuit breaker position [562.12] 637
Generator No.14 circuit breaker position [562.13] 637
Generator No.15 circuit breaker position [562.14] 637
Generator No.16 circuit breaker position [562.15] 637
Generator No.17 circuit breaker position [563.0] 638
Generator No.18 circuit breaker position [563.1] 638
Generator No.19 circuit breaker position [563.2] 638

Generator No.20 circuit breaker position [563.3] 638
Generator No.21 circuit breaker position [563.4] 638
Generator No.22 circuit breaker position [563.5] 638
Generator No.23 circuit breaker position [563.6] 638
Generator No.24 circuit breaker position [563.7] 639
Generator No.25 circuit breaker position [563.8] 639
Generator No.26 circuit breaker position [563.9] 639
Generator No.27 circuit breaker position [563.10] 639
Generator No.28 circuit breaker position [563.11] 639
Generator No.29 circuit breaker position [563.12] 639
Generator No.30 circuit breaker position [563.13] 639
Generator No.31 circuit breaker position [563.14] 640
Generator No.32 circuit breaker position [563.15] 640
Mains/tie breaker No.1 circuit breaker position [976.0] 640
Mains/tie breaker No.2 circuit breaker position [976.1] 640
Mains/tie breaker No.3 circuit breaker position [976.2] 640
Mains/tie breaker No.4 circuit breaker position [976.3] 641
Mains/tie breaker No.5 circuit breaker position [976.4] 641
Mains/tie breaker No.6 circuit breaker position [976.5] 641
Mains/tie breaker No.7 circuit breaker position [976.6] 641
Mains/tie breaker No.8 circuit breaker position [976.7] 641
Mains/tie breaker No.9 circuit breaker position [976.8] 642
Mains/tie breaker No.10 circuit breaker position [976.9] 642
Mains/tie breaker No.11 circuit breaker position [976.10] 642
Mains/tie breaker No.12 circuit breaker position [976.11] 642
Mains/tie breaker No.13 circuit breaker position [976.12] 642
Mains/tie breaker No.14 circuit breaker position [976.13] 643
Mains/tie breaker No.15 circuit breaker position [976.14] 643
Mains/tie breaker No.16 circuit breaker position [976.15] 643
Mains/tie breaker No.17 circuit breaker position [977.0] 643
Mains/tie breaker No.18 circuit breaker position [977.1] 643
Mains/tie breaker No.19 circuit breaker position [977.2] 644
Mains/tie breaker No.20 circuit breaker position [977.3] 644
Mains/tie breaker No.21 circuit breaker position [977.4] 644
Mains/tie breaker No.22 circuit breaker position [977.5] 644
Mains/tie breaker No.23 circuit breaker position [977.6] 644
Mains/tie breaker No.24 circuit breaker position [977.7] 645
Mains/tie breaker No.25 circuit breaker position [977.8] 645
Mains/tie breaker No.26 circuit breaker position [977.9] 645
Mains/tie breaker No.27 circuit breaker position [977.10] 645
Mains/tie breaker No.28 circuit breaker position [977.11] 645
Mains/tie breaker No.29 circuit breaker position [977.12] 646

Mains/tie breaker No.30 circuit breaker position [977.13] 646
Mains/tie breaker No.31 circuit breaker position [977.14] 646
Mains/tie breaker No.32 circuit breaker position [977.15] 646
Generator protections 646
Over frequency level 1 active as an alarm [962.0] 646
Over frequency level 2 active as an alarm [962.1] 647
Under frequency level 1 active as an alarm [962.2] 647
Under frequency level 2 active as an alarm [962.3] 647
Over voltage level 1 active as an alarm [962.4] 647
Over voltage level 2 active as an alarm [962.5] 647
Under voltage level 1 active as an alarm [962.6] 647
Under voltage level 2 active as an alarm [962.7] 647
Minimum kW level 1 active as an alarm [962.8] 648
Minimum kW level 2 active as an alarm [962.9] 648
Maximum kW level 1 active as an alarm [962.10] 648
Maximum kW level2 active as an alarm [962.11] 648
Reverse kW level 1 active as an alarm [962.12] 648
Reverse kW level 2 active as an alarm [962.13] 648
Minimum kVAR level 1 active as an alarm [962.14] 648
Minimum kVAR level 2 active as an alarm [962.15] 649
Over frequency level 1 active as a fault [963.0] 649
Over frequency level 2 active as a fault [963.1] 649
Under frequency level 1 active as a fault [963.2] 649
Under frequency level 2 active as a fault [963.3] 649
Over voltage level 1 active as a fault [963.4] 649
Over voltage level 2 active as a fault [963.5] 649
Under voltage level 1 active as a fault [963.6] 650
Under voltage level 2 active as a fault [963.7] 650
Minimum kW level 1 active as a fault [963.8] 650
Minimum kW level 2 active as a fault [963.9] 650
Maximum kW level 1 active as a fault [963.10] 650
Maximum kW level 2 active as a fault [963.11] 650
Reverse kW level 1 active as a fault [963.12] 650
Reverse kW level 2 active as a fault [963.13] 651
Minimum kVAR level 1 active as a fault [963.14] 651
Minimum kVAR level 2 active as a fault [963.15] 651
Maximum kVAR level 1 active as an alarm [964.0] 651
Maximum kVAR level 2 active as an alarm [964.1] 651
Reverse kVAR level 1 active as an alarm [964.2] 651
Reverse kVAR level 2 active as an alarm [964.3] 651
Maximum current level 1 active as an alarm [964.4] 652
Maximum current level 2 active as an alarm [964.5] 652

Maximum neutral current level 1 active as an alarm [964.6] 652
Maximum neutral current level 2 active as an alarm [964.7] 652
Short circuit active as an alarm [964.8] 652
Uneven kW active as an alarm [964.9] 652
Uneven kVAR active as an alarm [964.10] 652
Last trip out active as an alarm [964.13] 653
Earth fault level 1 active as an alarm [964.14] 653
Earth fault level 2 active as an alarm [964.15] 653
Maximum kVAR level 1 active as a fault [965.0] 653
Maximum kVAR level 2 active as a fault [965.1] 653
Reverse kVAR level 1 active as a fault [965.2] 653
Reverse kVAR level 2 active as a fault [965.3] 653
Maximum current level 1 active as a fault [965.4] 654
Maximum current level 2 active as a fault [965.5] 654
Maximum neutral current level 1 active as a fault [965.6] 654
Maximum neutral current level 2 active as a fault [965.7] 654
Short circuit active as an alarm [965.8] 654
Uneven kW active as a fault [965.9] 654
Uneven kVAR active as a fault [965.10] 654
Last trip out active as a fault [965.13] 655
Earth fault level 1 active as a fault [965.14] 655
Earth fault level 2 active as a fault [965.15] 655
Mismatch rotophases level 1 [4053.0] 655
Mismatch rotophases level 2 [4053.1] 655
Minimum AVR output level 1 [4211.0] 655
Minimum AVR output level 2 [4211.1] 655
Maximum AVR output level 1 [4212.0] 656
Maximum AVR output level 2 [4212.1] 656
Generator over frequency level 1 [4250.0] 656
Generator over frequency level 2 [4250.1] 656
Generator under frequency level 1 [4251.0] 656
Generator under frequency level 2 [4251.1] 656
Generator over voltage level 1 [4252.0] 656
Generator over voltage level 2 [4252.1] 657
Generator under voltage level 1 [4253.0] 657
Generator under voltage level 2 [4253.1] 657
Generator minimum KW level 1 [4254.0] 657
Generator minimum KW level 2 [4254.1] 657
Generator maximum KW level 1 [4255.0] 657
Generator maximum KW level 2 [4255.1] 657
Generator reverse KW level 1 [4256.0] 658
Generator reverse KW level 2 [4256.1] 658

Generator minimum KVAR level 1 [4257.0] 658
Generator minimum KVAR level 2 [4257.1] 658
Generator maximum KVAR level 1 [4258.0] 658
Generator maximum KVAR level 2 [4258.1] 658
Generator reverse KVAR level 1 [4259.0] 658
Generator reverse KVAR level 2 [4259.1] 659
Generator maximum current level 1 [4260.0] 659
Generator maximum current level 2 [4260.1] 659
Generator maximum neutral current level 1 [4261.0] 659
Generator maximum neutral current level 2 [4261.1] 659
Generator short-circuit level 1 [4262.0] 659
Generator short-circuit level 2 [4262.1] 659
Uneven kW sharing fault level 1 [4263.0] 660
Uneven kW sharing fault level 2 [4263.1] 660
Uneven kVAR sharing fault level 1 [4264.0] 660
Uneven kVAR sharing fault level 2 [4264.1] 660
Generator earth fault current level 1 [4267.0] 660
Generator earth fault current level 2 [4267.1] 660
Generator voltage unbalance level 1 [4268.0] 660
Generator voltage unbalance level 2 [4268.1] 661
Generator current unbalance level 1 [4269.0] 661
Generator current unbalance level 2 [4269.1] 661
Generator rotophase level 1 [4272.0] 661
Generator rotophase level 2 [4272.1] 661

Bus protections 661

Over frequency level 1 active as an alarm [966.0] 661
Over frequency level 2 active as an alarm [966.1] 662
Under frequency level 1 active as an alarm [966.2] 662
Under frequency level 2 active as an alarm [966.3] 662
Over voltage level 1 active as an alarm [966.4] 662
Over voltage level 2 active as an alarm [966.5] 662
Under voltage level 1 active as an alarm [966.6] 662
Under voltage level 2 active as an alarm [966.7] 662
Minimum kVAR level 1 active as an alarm [966.14] 663
Minimum kVAR level 2 active as an alarm [966.15] 663
Over frequency level 1 active as a fault [967.0] 663
Over frequency level 2 active as a fault [967.1] 663
Under frequency level 1 active as a fault [967.2] 663
Under frequency level 2 active as a fault [967.3] 663
Over voltage level 1 active as a fault [967.4] 663
Over voltage level 2 active as a fault [967.5] 664
Under voltage level 1 active as a fault [967.6] 664

Under voltage level 2 active as a fault [967.7] 664
Minimum kVAR level 1 active as a fault [967.14] 664
Minimum kVAR level 2 active as a fault [967.15] 664
Bus over frequency level 1 [4300.0] 664
Bus over frequency level 2 [4300.1] 664
Bus under frequency level 1 [4301.0] 665
Bus under frequency level 2 [4301.1] 665
Bus over voltage level 1 [4302.0] 665
Bus over voltage level 2 [4302.1] 665
Bus under voltage level 1 [4303.0] 665
Bus under voltage level 2 [4303.1] 665
Bus voltage unbalance level 1 [4314.0] 665
Bus voltage unbalance level 2 [4314.1] 666
Bus rotophase level 1 [4318.0] 666
Bus rotophase level 2 [4318.1] 666
Engine protections 666
Engine over speed level 1 [4200.0] 666
Engine over speed level 2 [4200.1] 666
Engine under speed level 1 [4201.0] 666
Engine under speed level 2 [4201.1] 667
Battery minimum voltage level 1 [4202.0] 667
Battery minimum voltage level 2 [4202.1] 667
Battery maximum voltage level 1 [4203.0] 667
Battery maximum voltage level 2 [4203.1] 667
Engine minimum oil pressure level 1 [4204.0] 667
Engine minimum oil pressure level 2 [4204.1] 667
Engine maximum water temperature level 1 [4205.0] 668
Engine maximum water temperature level 2 [4205.1] 668
Analog input 1 protection threshold 1 [4206.0] 668
Analog input 1 protection threshold 2 [4206.1] 668
Analog input 2 protection threshold 1 [4207.0] 668
Analog input 2 protection threshold 2 [4207.1] 668
Analog input 3 protection threshold 1 [4208.0] 668
Analog input 3 protection threshold 2 [4208.1] 669
Minimum speed output level 1 [4209.0] 669
Minimum speed output level 2 [4209.1] 669
Maximum speed output level 1 [4210.0] 669
Maximum speed output level 2 [4210.1] 669
Communication 669
Write date/time [3015.0] 669
Write engine meters [3015.1] 670
Write input functions [3015.3] 670

Reading via Modbus TCP [3015.8] 670
Writing via Modbus TCP [3015.9] 670
Others 670
New fault occured: Fault LED is blinking [950.0] 670
New alarm occured: Alarm LED is blinking [950.1] 671
Fault exist: Fault LED is on [950.2] 671
Alarm exist: Alarm LED is on [950.3] 671
Engine running [950.4] 671
Overspeed level 1 active as an alarm [960.0] 671
Overspeed level 2 active as an alarm [960.1] 671
Under speed level 1 active as an alarm [960.2] 671
Under speed level 2 active as an alarm [960.3] 672
Battery minimum voltage level 1 active as an alarm [960.4] 672
Battery minimum voltage level 2 active as an alarm [960.5] 672
Battery maximum voltage 1 active as an alarm [960.6] 672
Battery maximum voltage level 2 active as an alarm [960.7] 672
Minimum oil pressure level 1 active as an alarm [960.8] 672
Minimum oil pressure level 2 active as an alarm [960.9] 672
Maximum water temperature level 1 active as an alarm [960.10] 673
Maximum water temperature level 2 active as an alarm [960.11] 673
Overspeed level 1 active as a fault [961.0] 673
Overspeed level 2 active as a fault [961.1] 673
Under speed level 1 active as a fault [961.2] 673
Under speed level 2 active as a fault [961.3] 673
Battery minimal voltage level 1 active as a fault [961.4] 673
Battery minimal voltage level 2 active as a fault [961.5] 674
Battery maximum voltage level 1 active as a fault [961.6] 674
Battery maximum voltage level 2 active as a fault [961.7] 674
Minimum oil pressure level 1 active as a fault [961.8] 674
Minimum oil pressure level 2 active as a fault [961.9] 674
Maximum water temperature level 1 active as a fault [961.10] 674
Maximum water temperature level 2 active as a fault [961.11] 674
Fail to close bus breaker active as a fault [961.12] 675
Fail to open bus breaker active as a fault [961.13] 675
Bus breaker open suddently active as a fault [961.14] 675
Bus breaker close suddently active as a fault [961.15] 675
J1939: DM1 protect active as an alarm [968.12] 675
J1939: DM1 amber active as an alarm [968.13] 675
J1939: DM1 red active as an alarm [968.14] 675
J1939: DM1 malfunction active as an alarm [968.15] 676
J1939: DM1 protect active as a fault [969.12] 676
J1939: DM1 amber active as a fault [969.13] 676

J1939: DM1 red active as a fault [969.14] 676
J1939: DM1 malfunction active as a fault [969.15] 676
Fail to synchronize active as an alarm [970.0] 676
CAN1 controllers communication fault active as an alarm [970.2] 676
Minimum/maximum analog measure 1 (level 1) active as an alarm [970.4] 677
Minimum/maximum analog measure 1 (level 2) active as an alarm [970.5] 677
Minimum/maximum analog measure 2 (level 1) active as an alarm [970.6] 677
Minimum/maximum analog measure 2 (level 2) active as an alarm [970.7] 677
Minimum/maximum analog measure 3 (level 1) active as an alarm [970.8] 677
Minimum/maximum analog measure 3 (level 2) active as an alarm [970.9] 677
Fail to stabilize speed active as an alarm [970.14] 677
Fail to stabilize voltage active as an alarm [970.15] 678
Fail to synchronize active as a fault [971.0] 678
CAN1 controllers communication fault active as a fault [971.2] 678
Minimum/maximum analog measure 1 (level 1) active as a fault [971.4] 678
Minimum/maximum analog measure 1 (level 2) active as a fault [971.5] 678
Minimum/maximum analog measure 2 (level 1) active as a fault [971.6] 678
Minimum/maximum analog measure 2 (level 2) active as a fault [971.7] 678
Minimum/maximum analog measure 3 (level 1) active as a fault [971.8] 679
Minimum/maximum analog measure 3 (level 2) active as a fault [971.9] 679
Fail to close generator breaker active as a fault [971.10] 679
Fail to open generator breaker active as a fault [971.11] 679
Generator breaker open suddently active as a fault [971.12] 679
Generator breaker close suddently active as a fault [971.13] 679
CANopen error active as an alarm [972.0] 679
J1939 error active as an alarm [972.1] 680
Overload microcontroler active as an alarm [972.4] 680
Maintenance hours n°1 active as an alarm [972.5] 680
Maintenance hours n°2 active as an alarm [972.6] 680
Maintenance hours n°3 active as an alarm [972.7] 680
Maintenance hours n°4 active as an alarm [972.8] 680
Maintenance hours n°5 active as an alarm [972.9] 680
Maintenance days n°1 active as an alarm [972.10] 681
Maintenance days n°2 active as an alarm [972.11] 681
Maintenance days n°3 active as an alarm [972.12] 681
Maintenance days n°4 active as an alarm [972.13] 681
Maintenance days n°5 active as an alarm [972.14] 681
Oil pressure fault active as a fault [973.0] 681
Coolant temperature fault active as a fault [973.1] 681
Emergency stop active as a fault [973.2] 682
Fail to stop active as a fault [973.3] 682
Generator not ready active as a fault [973.4] 682

Fail to start active as a fault [973.5] 682
Generator unexpected stop active as a fault [973.6] 682
CANopen error active as a fault [973.8] 682
J1939 error active as a fault [973.9] 682
CAN1 missing MASTER active as an alarm [974.0] 683
Bus measure error active as an alarm [974.1] 683
Generator voltage unbalance level 1 active as an alarm [974.2] 683
Generator voltage unbalance level 2 active as an alarm [974.3] 683
Generator current unbalance level 1 active as an alarm [974.4] 683
Generator current unbalance level 2 active as an alarm [974.5] 683
Bus voltage unbalance level 1 active as an alarm [974.6] 683
Bus voltage unbalance level 2 active as an alarm [974.7] 684
Overflow in equation active as an alarm [974.8] 684
Minimum speed output active as an alarm [974.9] 684
Maximum speed output active as an alarm [974.10] 684
Minimum AVR output active as an alarm [974.11] 684
Maximum AVR output active as an alarm [974.12] 684
CAN1 missing PRIME active as an alarm [974.13] 684
CAN1 mismatch protocol version alarm active [974.15] 685
CAN1 missing MASTER active as a fault [975.0] 685
Generator voltage unbalance level 1 active as a fault [975.2] 685
Generator voltage unbalance level 2 active as a fault [975.3] 685
Generator current unbalance level 1 active as a fault [975.4] 685
Generator current unbalance level 2 active as a fault [975.5] 685
Bus voltage unbalance level 1 active as a fault [975.6] 685
Bus voltage unbalance level 2 active as a fault [975.7] 686
Minimum speed output active as a fault [975.9] 686
Maximum speed output active as a fault [975.10] 686
Minimum AVR output active as a fault [975.11] 686
Maximum AVR output active as a fault [975.12] 686
CAN1 missing PRIME active as a fault [975.13] 686
Statuses 687
Fault [952.0] 687
Bus voltage [952.1] 687
AUTO [952.2] 687
MAN [952.3] 687
TEST [952.5] 687
Generator breaker [952.6] 687
Alarm [952.7] 688
Generator voltage [952.8] 688
Remote buttons 688
Shift button [951.0] 688

Right arrow button [951.1] 688
Down arrow button [951.2] 688
Left arrow button [951.3] 688
Up arrow button [951.4] 689
Enter button [951.5] 689
Esc button [951.6] 689
Fault/Alarm/info button [951.7] 689
Generator breaker button [951.9] 689
Stop button [951.10] 689
Start button [951.11] 689
Man button [951.12] 690
Test button [951.13] 690
Auto button [951.14] 690
Shift button inhibition [8102.0] 690
Right arrow button inhibition [8102.1] 690
Down arrow button inhibition [8102.2] 690
Left arrow button inhibition [8102.3] 690
Up arrow button inhibition [8102.4] 691
Enter button inhibition [8102.5] 691
Esc button inhibition [8102.6] 691
Fault/Alarm/info button inhibition [8102.7] 691
Gen breaker button inhibition [8102.9] 691
Stop button inhibition [8102.10] 691
Start button inhibition [8102.11] 691
Man button inhibition [8102.12] 692
Test button inhibition [8102.13] 692
Auto button inhibition [8102.14] 692

Modbus TCP/IP

Abilities

An Ethernet communication can be established between a Modbus master device and the controller which acts as a Modbus slave.

The Modbus master device can read/write many internal variables of the controller according to their access rights described below.

Type	Range	Default access right
Readings (measurements, states,..).	[0000] ... [1999]	Read only.
Parameters.	[2000] ... [3999]	Read/Write.
Modes, statuses, settings,... Readings associated with digital inputs.	[4000] ... [9999] [4500] ... [4649], [4950]...[4999]	Read. Write (subject to activation).

In addition, the following functions are supported:

- Reading bit fields, listed in a dedicated tab of the file and organized in 16-bit words.
- Reading contiguous configurable data block.

Those functions allow a significant performance gain and help reducing the load on an Ethernet network.

Configuration

To communicate through Modbus/TCP, define the following settings:

- The module IP address set in the *Controller settings* ⇒ *System* ⇒ *Network* page.
- The *Modbus TCP port* [3014], generally 502, set in the *Controller settings* ⇒ *System* ⇒ *Network* page.
- The Modbus/TCP rights: see further.

The module handles up to 6 simultaneous connections. This can be used for multiple HMIs for example. .

Warning:
Connecting the controller to an *i4Gen 2* or *i4Gen Box* device or the *i4Gen Suite 2* software will utilize one Modbus connection.

Functions

The module supports the following Modbus functions:

Functions	Description
01, 02	Read logical data (Coil status, discrete input status).
03, 04	Read holding/input registers (16 bit).
05	Write logical value (single coil).
06	Write single register (16-bit variable).
15 (0x0F)	Write multiple logical values (multiple coils).
16 (0x10)	Write multiple registers.

All module variables are 16-bit registers. Yet it might be useful to consider them as logical values (if they are only set to 0 or 1) to simplify the Modbus/TCP protocol communication with some external PLC. If function 01 or 02 is used to read an internal register that is different from 0, then returned value will be 1.
The module registers start from address 0. Depending on your Modbus/TCP client equipment-software, you may need to use an offset of 1 when reading/writing registers as addresses may start from address 1. In this case, request address/register number 1 to access variable 0000 inside the module.

The 32-bit variables can only be written using 0x10 function.
If a digital input modifies a piece of data also to be written via Modbus, the latest request takes over the other.

Data [10000]...[10299] can be read by block (see further).

Access rights

The access rights depend on the parameter type and on Modbus access permissions. To manage access rights, set to 1 the corresponding bits in the register [3015]:

Description	Bit #	Default value
Writing date/ time	0	0
Writing engine counters	1	0
Not used	2	0
Writing digital input function register	3	1
Not used	4	0
Not used	5	0
Not used	6	0
Not used	7	0
Reading via Modbus/TCP	8	1
Writing via Modbus/TCP	9	1

Using the *Controller settings ⇒ Programming ⇒ Modbus ⇒ Modbus rights (i4Gen Suite 2, i4Gen 2 or i4Gen Box)* page, you can tick check-boxes to set those:

Bit #	Label	Description
0	Writing to date/ time	Module time synchronization.
1	Writing to Engine counters	Manual counters adjustment (see following table).
3	Writing to digital input function register	Opens the possibility to activate a digital input function using Modbus/TCP protocol.
8	Reading using Modbus/TCP protocol	Opens the possibility to grant reading individual permissions.
9	Writing using Modbus/TCP protocol	Opens the possibility to grant writing individual permissions.

The counters, encoded on 32 bits, include:

Meters (MSB|LSB)	Label
[80] | [79]	*Generator KWh*
[82] | [81]	*Generator KVARh*
[84] | [83]	*Number of hours generator running*

Bit fields

Bit fields are meant for decreasing communication bus load. They pack up to 16 logic variables inside a single register. This way, a single Modbus/TCP request can be used to read a group of information. Each variable contains the current value of 16 logic variables such as breaker positions, faults, alarms...

Note: Available data are related only to faults that occurred after the latest power up sequence. Events that occurred before the module has been power cycled are listed in the fault pages but not among the variables.

Example:

The table below shows a Modbus/TCP client sending a reading request (function 04) of 6 registers starting from variable [79].

Client request		Module server response	
Field	**Value**	**Field**	**Value**
Function code	04	Required function.	04
Starting Register (MSB)	00	Data bytes (= 2 * Number of requested registers).	6
Starting Register (LSB)	79	Value of register 0079 (MSB).	*D0*
Count of registers (MSB)	00	Value of register 0079 (LSB).	*D1*
Count of registers (LSB)	06	Value of register 0080 (MSB).	*D2*
		Value of register 0080 (LSB).	*D3*
		Value of register 0081 (MSB).	*D4*
		Value of register 0081 (LSB).	*D5*

Input function specificities

Each input function can be set from different sources thus the value is not a simple boolean but a summary of the state of the function from all the possible sources that can use it. The following array shows each bit and their meaning:

Bit	Description
0	Set when the function is triggered from the controller internal logic.
1	Set when the function is written through Modbus/TCP.
2	Set when the function is triggered from the scheduler.
3	Set when the function is written by **Easy Flex®**.
4	Set when the function is written from a custom page from i4Gen 2 or i4Gen Box.

Variables

Commands

Variable	kW Setpoint
Address	[361]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	%
Min value	-2000
Max value	2000
Description	KW setpoint when in load sharing

Variable	kVAR Setpoint
Address	[362]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	%
Min value	-2000
Max value	2000
Description	KVar setpoint when in load sharing

Variable	Starter n°1
Address	[4652]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Starter n°1 - cranking output.

Variable	Starter n°2
Address	[4653]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Starter n°2 - cranking output.

Variable	Starter n°3
Address	[4654]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Starter n°3 - cranking output.

Variable	Fuel / Gas
Address	[4655]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Fuel output - Output is activated at start up and shut down to stop the engine. Also used as logical remote start command on local engine controllers such as Diesel Control Unit or ECU, when 'external start sequence' function is enable.

Variable	Horn
Address	[4663]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	External horn or warning light. Activated whenever a fault/alarm triggers. The output is disable on acknowledgment or reset. Horn timer is adjustable in timer menu (0s = permanent activation).

Variable	Energize to stop
Address	[4674]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Output is energized to stop the engine fuel, activation remains from shutdown request untill engine is completely stopped (0rpm), an additionnal timer can be adjusted in timer menu.

Variable	Generator breaker close
Address	[4675]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Command to close the breaker. Output signal (pulse or continue) will depend on configuration in Breaker settings.

Variable	Generator breaker open
Address	[4677]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Command to open the breaker. Output signal (pulse or continue) will depend on configuration in Breaker settings.

Variable	Excitation command
Address	[4680]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Used for static paralleling: energizes the AVR excitation relay after startup of synchronized generator if nominal speed is reached, excitation will be disabled at stop or on protections.

Variable	Pre-start (Glow plugs & Auxiliaries)
Address	[4685]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	This output is used to activate the glow plugs or any auxiliary functions before starting (water preheating, pre-lubrication, etc.) output is active at start command for a defines timer (adjustable in timer menu) and release before cranking.

Variable	Smoke limit / Position limiting
Address	[4686]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Smoke limit / Position limiting. Output will be activated from cranking to speed stabilisation. dedicated to activate a smoke limiter function on engine.

Variable	Damper
Address	[4687]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Damping flap, activated during stop sequence untill reset in case of a fault resulting in a shut down.

Variable	Cooling fan
Address	[4688]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Cooling fan output, activated if the water temperature is above the Cooling fan activation threshold parameter (Configuration/engine menu)

Variable	Increase speed by pulse
Address	[4699]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Speed regulator requiring +/- contacts. In manual mode, the output is activated when you press the "top arrow" key or with an "Increase speed in manual mode"

Variable	Decrease speed by pulse
Address	[4700]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Speed regulator requiring +/- contacts. In manual mode, the output is activated when you press the "bottom arrow" key or with an "Decrease speed in manual mode"

Variable	Increase voltage by pulse
Address	[4701]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Voltage regulator requiring +/- contacts. In manual mode, the output is activated when you press the "top arrow" key or with an "Increase voltage in manual mode"

Variable	Decrease voltage by pulse
Address	[4702]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Voltage regulator requiring +/- contacts. In manual mode, the output is activated when you press the "bottom arrow" key or with an "Decrease voltage in manual mode"

Variable	Idle speed
Address	[4704]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Idle request on speed governor activated during 'Engine preheat timer' and optionally on cooling down if configured. Must be connect to idle speed input of speed regulation.

Variable	Ignition
Address	[4707]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Ignition (Gas sequence). Output activated before starting sequence.

Variable	Battery boost DO
Address	[4709]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Battery boost digital output. Activated with'Boost battery' function (configuration/protection).

Variable	1st non essential trip
Address	[4721]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	In case Load Shedding function is used: Load 1 to be shed in first

Variable	2nd non essential trip
Address	[4722]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	In case Load Shedding function is used: Load 2 to be shed after load 1

Variable	3rd non essential trip
Address	[4723]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	In case Load Shedding function is used: Load 3 to be shed after load 2

Variable	4th non essential trip
Address	[4724]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	In case Load Shedding function is used: Load 4 to be shed after load 3

Variable	5th non essential trip
Address	[4725]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	In case Load Shedding function is used: Load 5 to be shed after load 4

Variable	6th non essential trip
Address	[4726]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	In case Load Shedding function is used: Load 6 to be shed after load 5

Variable	7th non essential trip
Address	[4727]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	In case Load Shedding function is used: Load 7 to be shed after load 6

Variable	8th non essential trip
Address	[4728]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	In case Load Shedding function is used: Load 8 to be shed after load 7

Variable	9th non essential trip
Address	[4729]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	In case Load Shedding function is used: Load 9 to be shed after load 8

Variable	10th non essential trip
Address	[4730]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	In case Load Shedding function is used: Load 10 to be shed after load 9

Variable	Faults acknowledged
Address	[4737]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Active when a fault reset has been requested on the controller. Mainly used to signal an external unit that a fault reset has been performed and it should do the same.

Generator

Variable	Generator V1
Address	[50]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	V
Min value	0
Max value	65535
Description	Generator voltage neutral to phase 1

Variable	Generator V2
Address	[51]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	V
Min value	0
Max value	65535
Description	Generator voltage neutral to phase 2

Variable	Generator V3
Address	[52]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	V
Min value	0
Max value	65535
Description	Generator voltage neutral to phase 3

Variable	Generator U31 (%)
Address	[53]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	%
Min value	-2000
Max value	2000
Description	Generator Line to line voltage U31 in % of nominal voltage

Variable	Generator U23 (%)
Address	[54]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	%
Min value	-2000
Max value	2000
Description	Generator Line to line voltage U23 in % of nominal voltage

Variable	Generator U12 (%)
Address	[55]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	%
Min value	-2000
Max value	2000
Description	Generator Line to line voltage U12 in % of nominal voltage

Variable	Generator U31
Address	[56]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	V
Min value	0
Max value	65535
Description	Generator voltage phase 1 to phase 3

Variable	Generator U23
Address	[57]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	V
Min value	0
Max value	65535
Description	Generator voltage phase 3 to phase 2

Variable	Generator U12
Address	[58]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	V
Min value	0
Max value	65535
Description	Generator voltage phase 2 to phase 1

Variable	Generator I1
Address	[59]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	A
Min value	0
Max value	65535
Description	Generator current I1

Variable	Generator I2
Address	[60]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	A
Min value	0
Max value	65535
Description	Generator current I2

Variable	Generator I3
Address	[61]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	A
Min value	0
Max value	65535
Description	Generator current I3

Variable	Generator Neutral I
Address	[62]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	A
Min value	0
Max value	65535
Description	Generator neutral current

Variable	Generator P1
Address	[63]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	kW
Min value	-32768
Max value	32767
Description	Generator P1

Variable	Generator P2
Address	[64]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	kW
Min value	-32768
Max value	32767
Description	Generator P2

Variable	Generator P3
Address	[65]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	kW
Min value	-32768
Max value	32767
Description	Generator P3

Variable	Generator Q1
Address	[66]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	kVAR
Min value	-32768
Max value	32767
Description	Generator Q1

Variable	Generator Q2
Address	[67]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	kVAR
Min value	-32768
Max value	32767
Description	Generator Q2

Variable	Generator Q3
Address	[68]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	kVAR
Min value	-32768
Max value	32767
Description	Generator Q3

Variable	Generator cos(φ1)
Address	[69]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	-100
Max value	100
Description	Generator PF 1

Variable	Generator cos(φ2)
Address	[70]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	-100
Max value	100
Description	Generator PF 2

Variable	Generator cos(φ3)
Address	[71]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	-100
Max value	100
Description	Generator PF 3

Variable	Generator total P
Address	[72]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	kW
Min value	-32768
Max value	32767
Description	Generator total P

Variable	Generator total Q
Address	[73]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	kVAR
Min value	-32768
Max value	32767
Description	Generator total Q

Variable	Generator cos(φ)
Address	[74]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	-100
Max value	100
Description	Generator global PF

Variable	Generator frequency
Address	[75]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Hz
Min value	0
Max value	10000
Description	Generator frequency

Variable	Generator frequency (%)
Address	[76]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	%
Min value	-2000
Max value	2000
Description	Generator frequency in % of active nominal frequency

Variable	Generator KWh
Address	[79]
Scale Factor	0
Type	Unsigned integer 32 bits
Read/Write	Read
Unit	kWh
Min value	0
Max value	4294967295
Description	Generator kWH (lower bytes)

Variable	Generator KVARh
Address	[81]
Scale Factor	0
Type	Unsigned integer 32 bits
Read/Write	Read
Unit	kVARh
Min value	0
Max value	4294967295
Description	Generator kVARH (lower bytes)

Variable	Number of hours generator running
Address	[83]
Scale Factor	0
Type	Unsigned integer 32 bits
Read/Write	Read
Unit	h
Min value	0
Max value	4294967295
Description	Generator run hours (lower bytes)

Variable	Generator Minutes Run
Address	[85]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	min
Min value	0
Max value	59
Description	Generator run minutes

Variable	Earth fault current
Address	[86]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	A
Min value	0
Max value	65535
Description	Current measured on earth fault CT input.

Variable	Generator Auxiliary Hours Run
Address	[93]
Scale Factor	0
Type	Unsigned integer 32 bits
Read/Write	Read
Unit	h
Min value	0
Max value	4294967295
Description	Generator auxiliary run hours (lower bytes)

Variable	Generator Auxiliary Minutes Run
Address	[95]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	min
Min value	0
Max value	59
Description	Generator auxiliary run minutes

Variable	Number of hours in Safety Inhibition mode LSB
Address	[96]
Scale Factor	0
Type	Unsigned integer 32 bits
Read/Write	Read
Unit	h
Min value	0
Max value	4294967295
Description	Running hours in Safety Inhibition mode (lower bytes)

Variable	Number of minutes in Safety Inhibition mode
Address	[98]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	min
Min value	0
Max value	59
Description	Running minutes in Safety Inhibition mode

Variable	Voltage diff.
Address	[300]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	%
Min value	-2000
Max value	2000
Description	Difference of voltage

Variable	Freq. diff.
Address	[301]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	Hz
Min value	-10000
Max value	10000
Description	Difference of frequency

Variable	Phase diff.
Address	[302]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	°
Min value	-180
Max value	180
Description	Difference of phase (filter)

Variable	Phase sequence (0=indirect, 1=direct, 2=Error, 3=No Signal)
Address	[304]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	3
Description	Rotophase : Phi sequence of the genset polarity (0 = indirect, 1 = direct, 2 = Error, 3 = No Signal)

Variable	Generator active power (%)
Address	[358]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	%
Min value	-2000
Max value	2000
Description	Generator active power (%)

Variable	Generator reactive power (%)
Address	[359]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	%
Min value	-2000
Max value	2000
Description	Generator global KVAR

Variable	Fail to close generator breaker
Address	[4154]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Fault report: The automated system tried to close the circuit breaker without success

Variable	Fail to open generator breaker
Address	[4155]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Fault report: The automated system tried to open the circuit breaker without success

Variable	Generator breaker open suddenly
Address	[4156]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Fault report: The circuit breaker has opened without any request for opening from the automated system

Variable	Generator breaker close suddenly
Address	[4170]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Fault report: The circuit breaker has closed without any request for closing from the automated system

Variable	Fail to stabilize speed
Address	[4477]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Fault report: The speed is not stable, it is not maintained between 95% and 105% of the nominal speed

Variable	Fail to stabilize voltage
Address	[4478]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Fault report: The voltage is not stable, it is not maintained between 95% and 105% of the nominal voltage

Variable	Generator breaker state
Address	[4650]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Status report: Gives the state desired by the automated system for the circuit breaker (0: opening / 1: closing). Not to be confused with the closing command, whose behaviour depends on the configuration (Contact, Impulse, etc).

Variable	Generator ready
Address	[4670]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Status report: Active when start sequence is succesful and generator at its nominal frequency and voltage. The variable remains active until the engine is requested to stopped.

Variable	Generator ready and breaker closed
Address	[4672]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Status report: Active if generator(s) are producing

Variable	Generator stop
Address	[4673]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Status report: Activated if generator is stopped (speed <10rpm)

Bus

Variable	Bus V1
Address	[100]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	V
Min value	0
Max value	65535
Description	Bus/Mains voltage neutral to phase 1

Variable	Bus V2
Address	[101]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	V
Min value	0
Max value	65535
Description	Bus/Mains voltage neutral to phase 2

Variable	Bus V3
Address	[102]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	V
Min value	0
Max value	65535
Description	Bus/Mains voltage neutral to phase 3

Variable	Bus U31 (%)
Address	[103]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	%
Min value	-2000
Max value	2000
Description	Bus/Mains Line to line voltage U31 in % of nominal voltage

Variable	Bus U23 (%)
Address	[104]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	%
Min value	-2000
Max value	2000
Description	Bus/Mains Line to line voltage U23 in % of nominal voltage

Variable	Bus U12 (%)
Address	[105]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	%
Min value	-2000
Max value	2000
Description	Bus/Mains Line to line voltage U12 in % of nominal voltage

Variable	Bus U31
Address	[106]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	V
Min value	0
Max value	65535
Description	Bus/Mains voltage phase 1 to phase 3

Variable	Bus U23
Address	[107]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	V
Min value	0
Max value	65535
Description	Bus/Mains voltage phase 3 to phase 2

Variable	Bus U12
Address	[108]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	V
Min value	0
Max value	65535
Description	Bus/Mains voltage phase 2 to phase 1

Variable	Bus total P
Address	[112]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	kW
Min value	-32768
Max value	32767
Description	Bus total P

Variable	Bus total Q
Address	[113]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	kVAR
Min value	-32768
Max value	32767
Description	Bus total Q

Variable	Bus cos(φ)
Address	[114]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	-100
Max value	100
Description	Bus/Mains global PF

Variable	Bus frequency
Address	[118]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Hz
Min value	0
Max value	10000
Description	Bus/Mains frequency

Variable	Bus frequency (%)
Address	[119]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	%
Min value	-2000
Max value	2000
Description	Bus/Mains frequency in % of active nominal frequency

Variable	Dead bus bar
Address	[124]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	There is no voltage on the common bus bar

Variable	Phase sequence (0=indirect, 1=direct, 2=Error, 3=No Signal)
Address	[305]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	3
Description	Rotophase : Phi sequence of the busbar polarity (0 = indirect, 1 = direct, 2 = Error, 3 = No Signal)

Engine

Variable	Oil pressure
Address	[200]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	bar
Min value	0
Max value	65535
Description	Oil pressure

Variable	Water coolant temperature
Address	[201]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Water temperature

Variable	Engine speed
Address	[202]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	rpm
Min value	0
Max value	10000
Description	Speed

Variable	GE Speed (%)
Address	[203]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	%
Min value	-2000
Max value	2000
Description	Engine speed in % of active nominal speed

Variable	Unexpected stop
Address	[4451]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Fault report: The engine has stopped without a stop request from the automated system

Variable	Fail to stop engine
Address	[4472]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Fault report: The automated system tried to stop the engine without success

Variable	Fail to start engine
Address	[4475]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Fault report: The automated system tried to start the engine without success

Variable	Timer Ignition ON
Address	[4480]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	s
Min value	0
Max value	65535
Description	Timer Ignition ON

Variable	Timer Gas ON
Address	[4481]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	s
Min value	0
Max value	65535
Description	Timer Gas ON

Variable	Timer Ignition OFF
Address	[4482]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	s
Min value	0
Max value	65535
Description	Timer Ignition OFF

CAN bus ECU/ECM

Variable	Protection Lamp
Address	[658]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	5
Description	Protection Lamp status (PGN : 65226 / SPN: 987)

Variable	Amber Warning Lamp
Address	[659]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	5
Description	Amber Warning Lamp status (PGN : 65226 / SPN: 624)

Variable	Red Stop Lamp
Address	[660]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	5
Description	Red Stop Lamp status (PGN : 65226 / SPN: 623)

Variable	Malfunction Indicator Lamp
Address	[661]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	5
Description	Malfunction Indicator Lamp status (PGN : 65226 / SPN: 1213)

Variable	Engine speed
Address	[679]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	rpm
Min value	0
Max value	65535
Description	Engine speed

Variable	Oil pressure
Address	[680]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	kPa
Min value	0
Max value	65535
Description	Engine Oil Pressure 1

Variable	Coolant temperature
Address	[681]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Coolant Temperature

Variable	Accelerator Pedal Position 1
Address	[682]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	%
Min value	0
Max value	65535
Description	Accelerator Pedal Position 1

Variable	Engine Percent Load At Current Speed
Address	[683]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	%
Min value	0
Max value	65535
Description	Engine Percent Load At Current Speed

Variable	Driver's Demand Engine - Percent Torque
Address	[684]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	%
Min value	-32768
Max value	32767
Description	Driver's Demand Engine - Percent Torque

Variable	Actual Engine - Percent Torque
Address	[685]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	%
Min value	-32768
Max value	32767
Description	Actual Engine - Percent Torque

Variable	Engine Demand - Percent Torque
Address	[686]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	%
Min value	-32768
Max value	32767
Description	Engine Demand - Percent Torque

Variable	Engine Intake Manifold #1 Absolute Pressure
Address	[687]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	kPa
Min value	0
Max value	65535
Description	Engine Intake Manifold #1 Absolute Pressure

Variable	Engine Exhaust Manifold Bank 2 Temperature 1
Address	[688]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Exhaust Manifold Bank 2 Temperature 1

Variable	Engine Exhaust Manifold Bank 1 Temperature 1
Address	[689]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Exhaust Manifold Bank 1 Temperature 1

Variable	Engine Fuel Valve 1 Intake Absolute Pressure
Address	[690]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	kPa
Min value	0
Max value	65535
Description	Engine Fuel Valve 1 Intake Absolute Pressure

Variable	Auxiliary Pressure #1
Address	[691]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	kPa
Min value	0
Max value	65535
Description	Auxiliary Pressure #1

Variable	Auxiliary Pressure #2
Address	[692]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	kPa
Min value	0
Max value	65535
Description	Auxiliary Pressure #2

Variable	Engine Oil Filter Intake Pressure
Address	[693]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	kPa
Min value	0
Max value	65535
Description	Engine Oil Filter Intake Pressure

Variable	Instantaneous Estimated Brake Power
Address	[694]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	kW
Min value	0
Max value	65535
Description	Instantaneous Estimated Brake Power

Variable	Engine ECU Temperature
Address	[695]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine ECU Temperature

Variable	Engine Alternator Winding 1 Temperature
Address	[696]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Alternator Winding 1 Temperature

Variable	Engine Alternator Winding 2 Temperature
Address	[697]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Alternator Winding 2 Temperature

Variable	Engine Alternator Winding 3 Temperature
Address	[698]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Alternator Winding 3 Temperature

Variable	Trip Fuel (Gaseous)
Address	[699]
Scale Factor	0
Type	Unsigned integer 32 bits
Read/Write	Read
Unit	kg
Min value	0
Max value	4294967295
Description	Trip Fuel (Gaseous)

Variable	Total Fuel Used (Gaseous)
Address	[701]
Scale Factor	0
Type	Unsigned integer 32 bits
Read/Write	Read
Unit	kg
Min value	0
Max value	4294967295
Description	Total Fuel Used (Gaseous)

Variable	Engine Rated Power
Address	[703]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	kW
Min value	0
Max value	65535
Description	Engine Rated Power

Variable	Engine Rated Speed
Address	[704]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	rpm
Min value	0
Max value	65535
Description	Engine Rated Speed

Variable	Active Diagnostic Trouble Code Count
Address	[705]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	65535
Description	Active Diagnostic Trouble Code Count

Variable	Engine Fuel 1 Injector Metering Rail 1 Pressure
Address	[706]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	MPa
Min value	0
Max value	65535
Description	Engine Fuel 1 Injector Metering Rail 1 Pressure

Variable	Nominal Friction - Percent Torque
Address	[707]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	%
Min value	-32768
Max value	32767
Description	Nominal Friction - Percent Torque

Variable	Engine's Desired Operating Speed
Address	[708]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	rpm
Min value	0
Max value	65535
Description	Engine's Desired Operating Speed

Variable	Engine Total Hours of Operation
Address	[709]
Scale Factor	1
Type	Unsigned integer 32 bits
Read/Write	Read
Unit	h
Min value	0
Max value	4294967295
Description	Engine Total Hours of Operation

Variable	Engine Trip Fuel
Address	[711]
Scale Factor	0
Type	Unsigned integer 32 bits
Read/Write	Read
Unit	L
Min value	0
Max value	4294967295
Description	Engine Trip Fuel

Variable	Engine Total Fuel Used
Address	[713]
Scale Factor	0
Type	Unsigned integer 32 bits
Read/Write	Read
Unit	L
Min value	0
Max value	4294967295
Description	Engine Total Fuel Used

Variable	Engine Fuel 1 Temperature 1
Address	[715]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Fuel 1 Temperature 1

Variable	Engine Oil Temperature 1
Address	[716]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Oil Temperature 1

Variable	Engine Turbocharger 1 Oil Temperature
Address	[717]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Turbocharger 1 Oil Temperature

Variable	Engine Intercooler Temperature
Address	[718]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Intercooler Temperature

Variable	Engine Fuel Delivery Pressure
Address	[719]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	kPa
Min value	0
Max value	65535
Description	Engine Fuel Delivery Pressure

Variable	Engine Extended Crankcase Blow-by Pressure
Address	[720]
Scale Factor	3
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	kPa
Min value	0
Max value	65535
Description	Engine Extended Crankcase Blow-by Pressure

Variable	Engine Oil Level
Address	[721]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	%
Min value	0
Max value	65535
Description	Engine Oil Level

Variable	Engine Crankcase Pressure 1
Address	[722]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	kPa
Min value	-32768
Max value	32767
Description	Engine Crankcase Pressure 1

Variable	Engine Coolant Pressure 1
Address	[723]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	kPa
Min value	0
Max value	65535
Description	Engine Coolant Pressure 1

Variable	Engine Coolant Level 1
Address	[724]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	%
Min value	0
Max value	65535
Description	Engine Coolant Level 1

Variable	Engine Fuel Rate
Address	[725]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	L/h
Min value	0
Max value	65535
Description	Engine Fuel Rate

Variable	Engine Instantaneous Fuel Economy
Address	[726]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	65535
Description	Engine Instantaneous Fuel Economy

Variable	Barometric Pressure
Address	[727]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	kPa
Min value	0
Max value	65535
Description	Barometric Pressure

Variable	Ambient Air Temperature
Address	[728]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Ambient Air Temperature

Variable	Engine Intake 1 Air Temperature
Address	[729]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Intake 1 Air Temperature

Variable	Aftertreatment 1 Diesel Particulate Filter Intake Pressure
Address	[730]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	kPa
Min value	0
Max value	65535
Description	Aftertreatment 1 Diesel Particulate Filter Intake Pressure (use SPN 3609)

Variable	Engine Intake Manifold #1 Pressure
Address	[731]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	kPa
Min value	0
Max value	65535
Description	Engine Intake Manifold #1 Pressure

Variable	Engine Intake Manifold 1 Temperature
Address	[732]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Intake Manifold 1 Temperature

Variable	Engine Intake Air Pressure
Address	[733]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	kPa
Min value	0
Max value	65535
Description	Engine Intake Air Pressure

Variable	Engine Air Filter 1 Differential Pressure
Address	[734]
Scale Factor	3
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	kPa
Min value	0
Max value	65535
Description	Engine Air Filter 1 Differential Pressure

Variable	Engine Exhaust Temperature
Address	[735]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Exhaust Temperature

Variable	Engine Coolant Filter Differential Pressure
Address	[736]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	kPa
Min value	0
Max value	65535
Description	Engine Coolant Filter Differential Pressure

Variable	Battery Potential / Power Input 1
Address	[737]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	V
Min value	0
Max value	65535
Description	Battery Potential / Power Input 1

Variable	Key Switch Battery Potential
Address	[738]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	V
Min value	0
Max value	65535
Description	Key Switch Battery Potential

Variable	Engine Oil Filter Differential Pressure
Address	[739]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	kPa
Min value	0
Max value	65535
Description	Engine Oil Filter Differential Pressure

Variable	Water In Fuel Indicator 1
Address	[740]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	65535
Description	Water In Fuel Indicator 1

Variable	Engine Speed At Idle, Point 1
Address	[741]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	rpm
Min value	0
Max value	65535
Description	Engine Speed At Idle, Point 1

Variable	Maximum speed
Address	[742]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	rpm
Min value	0
Max value	65535
Description	Trip Maximum Engine Speed

Variable	Engine Derate Switch
Address	[754]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	65535
Description	Engine Derate Switch

Variable	Engine Auxiliary Shutdown Switch
Address	[755]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	65535
Description	Engine Auxiliary Shutdown Switch

Variable	Accelerator Pedal 2 Position
Address	[756]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	%
Min value	0
Max value	65535
Description	Accelerator Pedal 2 Position

Variable	Engine Torque Mode
Address	[757]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	65535
Description	Engine Torque Mode

Variable	Generator Governing Bias
Address	[758]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	%
Min value	-32768
Max value	32767
Description	Generator Governing Bias

Variable	SCR Error Lamp
Address	[759]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	65535
Description	SCR System Cleaning Lamp status

Variable	SCR System Cleaning Status
Address	[760]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	65535
Description	SCR System Cleaning Status

Variable	SCR System Cleaning Inhibited Status
Address	[761]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	65535
Description	SCR System Cleaning Inhibited Status

Variable	SCR System Cleaning Inhibited Due to Inhibit Switch
Address	[762]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	65535
Description	SCR System Cleaning Inhibited Due to Inhibit Switch

Variable	SCR System Cleaning Forced Status
Address	[763]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	65535
Description	SCR System Cleaning Forced Status

Variable	Aftertreatment 1 SCR Intake Temperature
Address	[764]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Aftertreatment 1 SCR Intake Temperature

Variable	Aftertreatment 1 SCR Outlet Temperature
Address	[765]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Aftertreatment 1 SCR Outlet Temperature

Variable	Aftertreatment 1 Diesel Exhaust Fluid Tank Heater Command
Address	[766]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	%
Min value	0
Max value	65535
Description	Aftertreatment 1 Diesel Exhaust Fluid Tank Heater Command

Variable	Aftertreatment 1 Diesel Particulate Filter Soot Load Percent
Address	[767]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	%
Min value	0
Max value	65535
Description	Aftertreatment 1 Diesel Particulate Filter Soot Load Percent

Variable	Aftertreatment 1 Diesel Particulate Filter Ash Load Percent
Address	[768]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	%
Min value	0
Max value	65535
Description	Aftertreatment 1 Diesel Particulate Filter Ash Load Percent

Variable	Aftertreatment 1 Diesel Particulate Filter Time Since Last Regen.
Address	[769]
Scale Factor	0
Type	Unsigned integer 32 bits
Read/Write	Read
Unit	s
Min value	0
Max value	4294967295
Description	Aftertreatment 1 Diesel Particulate Filter Time Since Last Active Regeneration

Variable	Aftertreatment 1 Diesel Particulate Filter Soot Load Regen. Thre.
Address	[771]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	%
Min value	0
Max value	65535
Description	Aftertreatment 1 Diesel Particulate Filter Soot Load Regeneration Threshold

Variable	Diesel Particulate Filter Lamp Command
Address	[772]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	65535
Description	Diesel Particulate Filter Lamp Command

Variable	Aftertreatment Diesel Particulate Filter Passive Regen. Status
Address	[773]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	65535
Description	Aftertreatment Diesel Particulate Filter Passive Regeneration Status

Variable	Aftertreatment Diesel Particulate Filter Active Regen. Status
Address	[774]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	65535
Description	Aftertreatment Diesel Particulate Filter Active Regeneration Status

Variable	Aftertreatment Diesel Particulate Filter Status
Address	[775]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	65535
Description	Aftertreatment Diesel Particulate Filter Status

Variable	Diesel Particulate Filter Active Regeneration Inhibited Status
Address	[776]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	65535
Description	Diesel Particulate Filter Active Regeneration Inhibited Status

Variable	Diesel Particulate Filter Active Regeneration Inhibited Due to Sw
Address	[777]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	65535
Description	Diesel Particulate Filter Active Regeneration Inhibited Due to Inhibit Switch

Variable	Exhaust System High Temperature Lamp Command
Address	[778]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	65535
Description	Exhaust System High Temperature Lamp Command

Variable	Aftertreatment 1 Diesel Particulate Filter Conditions Not Met
Address	[779]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	65535
Description	Aftertreatment 1 Diesel Particulate Filter Conditions Not Met for Active Regeneration

Variable	Aftertreatment 1 Diesel Particulate Filter Intake Pressure
Address	[780]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	kPa
Min value	0
Max value	65535
Description	Aftertreatment 1 Diesel Particulate Filter Intake Pressure

Variable	Engine Derate Request
Address	[781]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	%
Min value	0
Max value	65535
Description	Engine Derate Request

Variable	Aftertreatment 1 Diesel Particulate Filter Outlet Temperature
Address	[782]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Aftertreatment 1 Diesel Particulate Filter Outlet Temperature

Variable	Aftertreatment 1 Diesel Particulate Filter Intake Temperature
Address	[783]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Aftertreatment 1 Diesel Particulate Filter Intake Temperature

Variable	SLI Battery 1 Temperature
Address	[784]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	SLI Battery 1 Temperature

Variable	Aftertreatment 1 Diesel Exhaust Fluid Tank Volume
Address	[785]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	%
Min value	0
Max value	65535
Description	Aftertreatment 1 Diesel Exhaust Fluid Tank Volume

Variable	Aftertreatment 1 Diesel Exhaust Fluid Tank Temperature 1
Address	[786]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Aftertreatment 1 Diesel Exhaust Fluid Tank Temperature 1

Variable	Aftertreatment 1 Diesel Exhaust Fluid Tank Level
Address	[787]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	65535
Description	Aftertreatment 1 Diesel Exhaust Fluid Tank Level

Variable	Aftertreatment Diesel Exhaust Fluid Tank Low Level Indicator
Address	[788]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	65535
Description	Aftertreatment Diesel Exhaust Fluid Tank Low Level Indicator

Variable	Aftertreatment SCR Operator Inducement Severity
Address	[789]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	65535
Description	Aftertreatment SCR Operator Inducement Severity

Variable	Aftertreatment 1 Diesel Exhaust Fluid Tank Heater
Address	[790]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	%
Min value	0
Max value	65535
Description	Aftertreatment 1 Diesel Exhaust Fluid Tank Heater

Variable	Auxiliary Temperature 1
Address	[791]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Auxiliary Temperature 1

Variable	Engine Auxiliary Coolant Pressure
Address	[792]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	kPa
Min value	0
Max value	65535
Description	Engine Auxiliary Coolant Pressure

Variable	Engine Auxiliary Coolant Temperature
Address	[793]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Auxiliary Coolant Temperature

Variable	Engine Turbocharger 1 Turbine Intake Temperature
Address	[794]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Turbocharger 1 Turbine Intake Temperature

Variable	Engine Turbocharger 2 Turbine Intake Temperature
Address	[795]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Turbocharger 2 Turbine Intake Temperature

Variable	Engine Turbocharger 1 Compressor Intake Pressure
Address	[796]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	kPa
Min value	-32768
Max value	32767
Description	Engine Turbocharger 1 Compressor Intake Pressure

Variable	Engine Turbocharger 2 Compressor Intake Pressure
Address	[1150]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	kPa
Min value	-32768
Max value	32767
Description	Engine Turbocharger 2 Compressor Intake Pressure

Variable	Engine Exhaust Gas Port 17 Temperature
Address	[1151]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Exhaust Gas Port 17 Temperature

Variable	Engine Exhaust Gas Port 18 Temperature
Address	[1152]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Exhaust Gas Port 18 Temperature

Variable	Engine Exhaust Gas Port 19 Temperature
Address	[1153]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Exhaust Gas Port 19 Temperature

Variable	Engine Exhaust Gas Port 20 Temperature
Address	[1154]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Exhaust Gas Port 20 Temperature

Variable	Engine Exhaust Gas Port 13 Temperature
Address	[1155]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Exhaust Gas Port 13 Temperature

Variable	Engine Exhaust Gas Port 14 Temperature
Address	[1156]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Exhaust Gas Port 14 Temperature

Variable	Engine Exhaust Gas Port 15 Temperature
Address	[1157]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Exhaust Gas Port 15 Temperature

Variable	Engine Exhaust Gas Port 16 Temperature
Address	[1158]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Exhaust Gas Port 16 Temperature

Variable	Engine Exhaust Gas Port 9 Temperature
Address	[1159]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Exhaust Gas Port 9 Temperature

Variable	Engine Exhaust Gas Port 10 Temperature
Address	[1160]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Exhaust Gas Port 10 Temperature

Variable	Engine Exhaust Gas Port 11 Temperature
Address	[1161]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Exhaust Gas Port 11 Temperature

Variable	Engine Exhaust Gas Port 12 Temperature
Address	[1162]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Exhaust Gas Port 12 Temperature

Variable	Engine Exhaust Gas Port 5 Temperature
Address	[1163]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Exhaust Gas Port 5 Temperature

Variable	Engine Exhaust Gas Port 6 Temperature
Address	[1164]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Exhaust Gas Port 6 Temperature

Variable	Engine Exhaust Gas Port 7 Temperature
Address	[1165]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Exhaust Gas Port 7 Temperature

Variable	Engine Exhaust Gas Port 8 Temperature
Address	[1166]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Exhaust Gas Port 8 Temperature

Variable	Engine Exhaust Gas Port 1 Temperature
Address	[1167]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Exhaust Gas Port 1 Temperature

Variable	Engine Exhaust Gas Port 2 Temperature
Address	[1168]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Exhaust Gas Port 2 Temperature

Variable	Engine Exhaust Gas Port 3 Temperature
Address	[1169]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Exhaust Gas Port 3 Temperature

Variable	Engine Exhaust Gas Port 4 Temperature
Address	[1170]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Exhaust Gas Port 4 Temperature

Variable	Engine Alternator Bearing 1 Temperature
Address	[1171]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Alternator Bearing 1 Temperature

Variable	Engine Alternator Bearing 2 Temperature
Address	[1172]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Engine Alternator Bearing 2 Temperature

Variable	Engine Fuel 1 Injector Timing Rail 1 Pressure
Address	[1173]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	MPa
Min value	0
Max value	65535
Description	Engine Fuel 1 Injector Timing Rail 1 Pressure

Variable	Engine Wait to Start Lamp
Address	[1174]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	65535
Description	Engine Wait to Start Lamp

Variable	Engine Protection System has Shutdown Engine
Address	[1175]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	65535
Description	Engine Protection System has Shutdown Engine

Variable	Engine Protection System Approaching Shutdown
Address	[1176]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	65535
Description	Engine Protection System Approaching Shutdown

Variable	Engine Charge Air Cooler Thermostat Opening
Address	[1177]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	%
Min value	0
Max value	65535
Description	Engine Charge Air Cooler Thermostat Opening

Variable	Engine Throttle Valve 1 Position 1
Address	[1178]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	%
Min value	0
Max value	65535
Description	Engine Throttle Valve 1 Position 1

Variable	Charging System Potential (Voltage)
Address	[1179]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	V
Min value	0
Max value	65535
Description	Charging System Potential (Voltage)

Variable	Transmission 1 Oil Pressure
Address	[1180]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	kPa
Min value	0
Max value	65535
Description	Transmission 1 Oil Pressure

Variable	Engine Fuel Filter Differential Pressure
Address	[1181]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	kPa
Min value	0
Max value	65535
Description	Engine Fuel Filter Differential Pressure

Variable	MDEC module is alive
Address	[1200]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	MTU MDEC module is alive (NMT messages seen on dedicated CAN bus)

Variable	MDEC module communication error
Address	[1201]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	MTU MDEC module communication error (No NMT message on dedicated CAN bus)

Variable	Engine speed
Address	[1202]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	rpm
Min value	0
Max value	65535
Description	Engine speed - From MTU MDEC module

Variable	P-Lube Oil
Address	[1203]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	mbar
Min value	0
Max value	65535
Description	P-Lube Oil - From MTU MDEC module

Variable	P-Fuel
Address	[1204]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	bar
Min value	0
Max value	65535
Description	P-Fuel - From MTU MDEC module

Variable	P-Charge Air
Address	[1205]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	mbar
Min value	0
Max value	65535
Description	P-Charge Air - From MTU MDEC module

Variable	P-Fuel (Common Rail)
Address	[1206]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	bar
Min value	0
Max value	65535
Description	P-Fuel (Common Rail) - From MTU MDEC module

Variable	T-Coolant
Address	[1207]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	T-Coolant - From MTU MDEC module

Variable	T-Charge Air
Address	[1208]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	T-Charge Air - From MTU MDEC module

Variable	T-Coolant Intercooler
Address	[1209]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	T-Coolant Intercooler - From MTU MDEC module

Variable	T-Lube Oil
Address	[1210]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	T-Lube Oil - From MTU MDEC module

Variable	T-Fuel
Address	[1211]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	T-Fuel - From MTU MDEC module

Variable	Actual Failure Codes
Address	[1212]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	65535
Description	Actual Failure Codes - From MTU MDEC module

Variable	Combined Alarm Yellow
Address	[1213]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Combined Alarm Yellow - From MTU MDEC module

Variable	Combined Alarm Red
Address	[1214]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Combined Alarm Red - From MTU MDEC module

Variable	ECU Power
Address	[4740]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Turn on ECU power supply

Variable	ECU Stop
Address	[4741]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Stops the ECU after an engine stop phase

Inputs/outputs

Variable	Oil Pressure (Customisable)
Address	[150]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	bar
Min value	-32768
Max value	32767
Description	Analog 1 measure

Variable	Water temp. (Customisable)
Address	[151]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	°C
Min value	-32768
Max value	32767
Description	Analog 2 measure

Variable	Fuel (Customisable)
Address	[152]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	-32768
Max value	32767
Description	Analog 3 measure

Variable	Battery voltage
Address	[204]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	V
Min value	0
Max value	500
Description	Battery voltage measure

Variable	Input 1 (Customisable)
Address	[250]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Digital input n°1 of the product. Select a normally open polarity if the input is connected to 0V when the input should be considered active. Select a normally closed polarity if the input is connected to 0V when the input must be considered inactive. The validity indicates when the digital input should be taken into account. The T ON delay allows you to add a delay between the moment when the digital input is physically activated and the moment when the product considers it active for the automated system. The T OFF time delay allows you to add a delay between the moment when the digital input is physically disabled and the moment when the product considers it inactive for the automated system.

Variable	Input 2 (Customisable)
Address	[251]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Digital input n°2 of the product. Select a normally open polarity if the input is connected to 0V when the input should be considered active. Select a normally closed polarity if the input is connected to 0V when the input must be considered inactive. The validity indicates when the digital input should be taken into account. The T ON delay allows you to add a delay between the moment when the digital input is physically activated and the moment when the product considers it active for the automated system. The T OFF time delay allows you to add a delay between the moment when the digital input is physically disabled and the moment when the product considers it inactive for the automated system.

Variable	Input 3 (Customisable)
Address	[252]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Digital input n°3 of the product. Select a normally open polarity if the input is connected to 0V when the input should be considered active. Select a normally closed polarity if the input is connected to 0V when the input must be considered inactive. The validity indicates when the digital input should be taken into account. The T ON delay allows you to add a delay between the moment when the digital input is physically activated and the moment when the product considers it active for the automated system. The T OFF time delay allows you to add a delay between the moment when the digital input is physically disabled and the moment when the product considers it inactive for the automated system.

Variable	Input 4 (Customisable)
Address	[253]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Digital input n°4 of the product. Select a normally open polarity if the input is connected to 0V when the input should be considered active. Select a normally closed polarity if the input is connected to 0V when the input must be considered inactive. The validity indicates when the digital input should be taken into account. The T ON delay allows you to add a delay between the moment when the digital input is physically activated and the moment when the product considers it active for the automated system. The T OFF time delay allows you to add a delay between the moment when the digital input is physically disabled and the moment when the product considers it inactive for the automated system.

Variable	Input 5 (Customisable)
Address	[254]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Digital input n°5 of the product. Select a normally open polarity if the input is connected to 0V when the input should be considered active. Select a normally closed polarity if the input is connected to 0V when the input must be considered inactive. The validity indicates when the digital input should be taken into account. The T ON delay allows you to add a delay between the moment when the digital input is physically activated and the moment when the product considers it active for the automated system. The T OFF time delay allows you to add a delay between the moment when the digital input is physically disabled and the moment when the product considers it inactive for the automated system.

Variable	Input 6 (Customisable)
Address	[255]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Digital input n°6 of the product. Select a normally open polarity if the input is connected to 0V when the input should be considered active. Select a normally closed polarity if the input is connected to 0V when the input must be considered inactive. The validity indicates when the digital input should be taken into account. The T ON delay allows you to add a delay between the moment when the digital input is physically activated and the moment when the product considers it active for the automated system. The T OFF time delay allows you to add a delay between the moment when the digital input is physically disabled and the moment when the product considers it inactive for the automated system.

Variable	Input 7 (Customisable)
Address	[256]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Digital input n°7 of the product. Select a normally open polarity if the input is connected to 0V when the input should be considered active. Select a normally closed polarity if the input is connected to 0V when the input must be considered inactive. The validity indicates when the digital input should be taken into account. The T ON delay allows you to add a delay between the moment when the digital input is physically activated and the moment when the product considers it active for the automated system. The T OFF time delay allows you to add a delay between the moment when the digital input is physically disabled and the moment when the product considers it inactive for the automated system.

Variable	Input 8 (Customisable)
Address	[257]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Digital input n°8 of the product. Select a normally open polarity if the input is connected to 0V when the input should be considered active. Select a normally closed polarity if the input is connected to 0V when the input must be considered inactive. The validity indicates when the digital input should be taken into account. The T ON delay allows you to add a delay between the moment when the digital input is physically activated and the moment when the product considers it active for the automated system. The T OFF time delay allows you to add a delay between the moment when the digital input is physically disabled and the moment when the product considers it inactive for the automated system.

Variable	Input 9 (Customisable)
Address	[258]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Digital input n°9 of the product. Select a normally open polarity if the input is connected to 0V when the input should be considered active. Select a normally closed polarity if the input is connected to 0V when the input must be considered inactive. The validity indicates when the digital input should be taken into account. The T ON delay allows you to add a delay between the moment when the digital input is physically activated and the moment when the product considers it active for the automated system. The T OFF time delay allows you to add a delay between the moment when the digital input is physically disabled and the moment when the product considers it inactive for the automated system.

Variable	Analog 1 (Customisable)
Address	[259]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Digital input 10 (Analog1 set as Digital input)

Variable	Analog 2 (Customisable)
Address	[260]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Digital input 11 (Analog2 set as Digital input)

Variable	Analog 3 (Customisable)
Address	[261]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Digital input 12 (Analog3 set as Digital input)

Variable	Output 1 (Customisable)
Address	[4350]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Real time displayed status of Digital Output 1

Variable	Output 2 (Customisable)
Address	[4351]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Real time displayed status of Digital Output 2

Variable	Output 3 (Customisable)
Address	[4352]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Real time displayed status of Digital Output 3

Variable	Output 4 (Customisable)
Address	[4353]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Real time displayed status of Digital Output 4

Variable	Output 5 (Customisable)
Address	[4354]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Real time displayed status of Digital Output 5

Variable	Output 6 (Customisable)
Address	[4355]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Real time displayed status of Digital Output 6

Variable	Relay 1 (Customisable)
Address	[4356]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Real time displayed status of Relay Output 1

Variable	Relay 2 (Customisable)
Address	[4357]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Real time displayed status of Relay Output 2

Variable	Speed output
Address	[4404]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	%
Min value	-10000
Max value	10000
Description	Sommation of all speed deviations

Variable	Voltage output
Address	[4408]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	%
Min value	-10000
Max value	10000
Description	Sommation of all voltage deviations

I/O CAN bus expansion

Variable	CANopen DI 1 (Customisable)
Address	[800]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 1

Variable	CANopen DI 2 (Customisable)
Address	[801]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 2

Variable	CANopen DI 3 (Customisable)
Address	[802]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 3

Variable	CANopen DI 4 (Customisable)
Address	[803]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 4

Variable	CANopen DI 5 (Customisable)
Address	[804]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 5

Variable	CANopen DI 6 (Customisable)
Address	[805]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 6

Variable	CANopen DI 7 (Customisable)
Address	[806]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 7

Variable	CANopen DI 8 (Customisable)
Address	[807]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 8

Variable	CANopen DI 9 (Customisable)
Address	[808]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 9

Variable	CANopen DI 10 (Customisable)
Address	[809]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 10

Variable	CANopen DI 11 (Customisable)
Address	[810]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 11

Variable	CANopen DI 12 (Customisable)
Address	[811]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 12

Variable	CANopen DI 13 (Customisable)
Address	[812]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 13

Variable	CANopen DI 14 (Customisable)
Address	[813]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 14

Variable	CANopen DI 15 (Customisable)
Address	[814]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 15

Variable	CANopen DI 16 (Customisable)
Address	[815]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 16

Variable	CANopen DI 17 (Customisable)
Address	[816]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 17

Variable	CANopen DI 18 (Customisable)
Address	[817]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 18

Variable	CANopen DI 19 (Customisable)
Address	[818]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 19

Variable	CANopen DI 20 (Customisable)
Address	[819]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 20

Variable	CANopen DI 21 (Customisable)
Address	[820]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 21

Variable	CANopen DI 22 (Customisable)
Address	[821]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 22

Variable	CANopen DI 23 (Customisable)
Address	[822]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 23

Variable	CANopen DI 24 (Customisable)
Address	[823]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 24

Variable	CANopen DI 25 (Customisable)
Address	[824]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 25

Variable	CANopen DI 26 (Customisable)
Address	[825]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 26

Variable	CANopen DI 27 (Customisable)
Address	[826]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 27

Variable	CANopen DI 28 (Customisable)
Address	[827]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 28

Variable	CANopen DI 29 (Customisable)
Address	[828]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 29

Variable	CANopen DI 30 (Customisable)
Address	[829]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 30

Variable	CANopen DI 31 (Customisable)
Address	[830]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 31

Variable	CANopen DI 32 (Customisable)
Address	[831]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 32

Variable	CANopen AI 1 (Customisable)
Address	[1050]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	-32768
Max value	32767
Description	CANopen analog input 1

Variable	CANopen AI 2 (Customisable)
Address	[1051]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	-32768
Max value	32767
Description	CANopen analog input 2

Variable	CANopen AI 3 (Customisable)
Address	[1052]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	-32768
Max value	32767
Description	CANopen analog input 3

Variable	CANopen AI 4 (Customisable)
Address	[1053]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	-32768
Max value	32767
Description	CANopen analog input 4

Variable	CANopen AI 5 (Customisable)
Address	[1054]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	-32768
Max value	32767
Description	CANopen analog input 5

Variable	CANopen AI 6 (Customisable)
Address	[1055]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	-32768
Max value	32767
Description	CANopen analog input 6

Variable	CANopen AI 7 (Customisable)
Address	[1056]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	-32768
Max value	32767
Description	CANopen analog input 7

Variable	CANopen AI 8 (Customisable)
Address	[1057]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	-32768
Max value	32767
Description	CANopen analog input 8

Variable	CANopen AI 9 (Customisable)
Address	[1058]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	-32768
Max value	32767
Description	CANopen analog input 9

Variable	CANopen AI 10 (Customisable)
Address	[1059]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	-32768
Max value	32767
Description	CANopen analog input 10

Variable	CANopen AI 11 (Customisable)
Address	[1060]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	-32768
Max value	32767
Description	CANopen analog input 11

Variable	CANopen AI 12 (Customisable)
Address	[1061]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	-32768
Max value	32767
Description	CANopen analog input 12

Variable	CANopen AI 13 (Customisable)
Address	[1062]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	-32768
Max value	32767
Description	CANopen analog input 13

Variable	CANopen AI 14 (Customisable)
Address	[1063]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	-32768
Max value	32767
Description	CANopen analog input 14

Variable	CANopen AI 15 (Customisable)
Address	[1064]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	-32768
Max value	32767
Description	CANopen analog input 15

Variable	CANopen AI 16 (Customisable)
Address	[1065]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	-32768
Max value	32767
Description	CANopen analog input 16

Variable	CANopen DI 33 (Customisable)
Address	[1250]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 33

Variable	CANopen DI 34 (Customisable)
Address	[1251]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 34

Variable	CANopen DI 35 (Customisable)
Address	[1252]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 35

Variable	CANopen DI 36 (Customisable)
Address	[1253]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 36

Variable	CANopen DI 37 (Customisable)
Address	[1254]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 37

Variable	CANopen DI 38 (Customisable)
Address	[1255]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 38

Variable	CANopen DI 39 (Customisable)
Address	[1256]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 39

Variable	CANopen DI 40 (Customisable)
Address	[1257]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 40

Variable	CANopen DI 41 (Customisable)
Address	[1258]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 41

Variable	CANopen DI 42 (Customisable)
Address	[1259]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 42

Variable	CANopen DI 43 (Customisable)
Address	[1260]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 43

Variable	CANopen DI 44 (Customisable)
Address	[1261]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 44

Variable	CANopen DI 45 (Customisable)
Address	[1262]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 45

Variable	CANopen DI 46 (Customisable)
Address	[1263]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 46

Variable	CANopen DI 47 (Customisable)
Address	[1264]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 47

Variable	CANopen DI 48 (Customisable)
Address	[1265]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 48

Variable	CANopen DI 49 (Customisable)
Address	[1266]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 49

Variable	CANopen DI 50 (Customisable)
Address	[1267]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 50

Variable	CANopen DI 51 (Customisable)
Address	[1268]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 51

Variable	CANopen DI 52 (Customisable)
Address	[1269]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 52

Variable	CANopen DI 53 (Customisable)
Address	[1270]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 53

Variable	CANopen DI 54 (Customisable)
Address	[1271]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 54

Variable	CANopen DI 55 (Customisable)
Address	[1272]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 55

Variable	CANopen DI 56 (Customisable)
Address	[1273]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 56

Variable	CANopen DI 57 (Customisable)
Address	[1274]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 57

Variable	CANopen DI 58 (Customisable)
Address	[1275]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 58

Variable	CANopen DI 59 (Customisable)
Address	[1276]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 59

Variable	CANopen DI 60 (Customisable)
Address	[1277]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 60

Variable	CANopen DI 61 (Customisable)
Address	[1278]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 61

Variable	CANopen DI 62 (Customisable)
Address	[1279]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 62

Variable	CANopen DI 63 (Customisable)
Address	[1280]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 63

Variable	CANopen DI 64 (Customisable)
Address	[1281]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital Input 64

Variable	CANopen DO 1 (Customisable)
Address	[4751]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 1

Variable	CANopen DO 2 (Customisable)
Address	[4752]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 2

Variable	CANopen DO 3 (Customisable)
Address	[4753]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 3

Variable	CANopen DO 4 (Customisable)
Address	[4754]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 4

Variable	CANopen DO 5 (Customisable)
Address	[4755]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 5

Variable	CANopen DO 6 (Customisable)
Address	[4756]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 6

Variable	CANopen DO 7 (Customisable)
Address	[4757]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 7

Variable	CANopen DO 8 (Customisable)
Address	[4758]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 8

Variable	CANopen DO 9 (Customisable)
Address	[4759]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 9

Variable	CANopen DO 10 (Customisable)
Address	[4760]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 10

Variable	CANopen DO 11 (Customisable)
Address	[4761]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 11

Variable	CANopen DO 12 (Customisable)
Address	[4762]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 12

Variable	CANopen DO 13 (Customisable)
Address	[4763]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 13

Variable	CANopen DO 14 (Customisable)
Address	[4764]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 14

Variable	CANopen DO 15 (Customisable)
Address	[4765]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 15

Variable	CANopen DO 16 (Customisable)
Address	[4766]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 16

Variable	CANopen DO 17 (Customisable)
Address	[4767]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 17

Variable	CANopen DO 18 (Customisable)
Address	[4768]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 18

Variable	CANopen DO 19 (Customisable)
Address	[4769]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 19

Variable	CANopen DO 20 (Customisable)
Address	[4770]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 20

Variable	CANopen DO 21 (Customisable)
Address	[4771]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 21

Variable	CANopen DO 22 (Customisable)
Address	[4772]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 22

Variable	CANopen DO 23 (Customisable)
Address	[4773]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 23

Variable	CANopen DO 24 (Customisable)
Address	[4774]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 24

Variable	CANopen DO 25 (Customisable)
Address	[4775]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 25

Variable	CANopen DO 26 (Customisable)
Address	[4776]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 26

Variable	CANopen DO 27 (Customisable)
Address	[4777]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 27

Variable	CANopen DO 28 (Customisable)
Address	[4778]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 28

Variable	CANopen DO 29 (Customisable)
Address	[4779]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 29

Variable	CANopen DO 30 (Customisable)
Address	[4780]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 30

Variable	CANopen DO 31 (Customisable)
Address	[4781]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 31

Variable	CANopen DO 32 (Customisable)
Address	[4782]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 32

Variable	CANopen DO 33 (Customisable)
Address	[5100]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 33

Variable	CANopen DO 34 (Customisable)
Address	[5101]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 34

Variable	CANopen DO 35 (Customisable)
Address	[5102]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 35

Variable	CANopen DO 36 (Customisable)
Address	[5103]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 36

Variable	CANopen DO 37 (Customisable)
Address	[5104]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 37

Variable	CANopen DO 38 (Customisable)
Address	[5105]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 38

Variable	CANopen DO 39 (Customisable)
Address	[5106]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 39

Variable	CANopen DO 40 (Customisable)
Address	[5107]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 40

Variable	CANopen DO 41 (Customisable)
Address	[5108]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 41

Variable	CANopen DO 42 (Customisable)
Address	[5109]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 42

Variable	CANopen DO 43 (Customisable)
Address	[5110]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 43

Variable	CANopen DO 44 (Customisable)
Address	[5111]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 44

Variable	CANopen DO 45 (Customisable)
Address	[5112]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 45

Variable	CANopen DO 46 (Customisable)
Address	[5113]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 46

Variable	CANopen DO 47 (Customisable)
Address	[5114]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 47

Variable	CANopen DO 48 (Customisable)
Address	[5115]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 48

Variable	CANopen DO 49 (Customisable)
Address	[5116]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 49

Variable	CANopen DO 50 (Customisable)
Address	[5117]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 50

Variable	CANopen DO 51 (Customisable)
Address	[5118]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 51

Variable	CANopen DO 52 (Customisable)
Address	[5119]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 52

Variable	CANopen DO 53 (Customisable)
Address	[5120]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 53

Variable	CANopen DO 54 (Customisable)
Address	[5121]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 54

Variable	CANopen DO 55 (Customisable)
Address	[5122]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 55

Variable	CANopen DO 56 (Customisable)
Address	[5123]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 56

Variable	CANopen DO 57 (Customisable)
Address	[5124]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 57

Variable	CANopen DO 58 (Customisable)
Address	[5125]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 58

Variable	CANopen DO 59 (Customisable)
Address	[5126]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 59

Variable	CANopen DO 60 (Customisable)
Address	[5127]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 60

Variable	CANopen DO 61 (Customisable)
Address	[5128]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 61

Variable	CANopen DO 62 (Customisable)
Address	[5129]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 62

Variable	CANopen DO 63 (Customisable)
Address	[5130]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 63

Variable	CANopen DO 64 (Customisable)
Address	[5131]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	CANopen digital output 64

Timers/meters

Variable	Number of generator starts
Address	[78]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	65535
Description	Number of starts (only information)

Variable	Meter 1 (h) (Customisable)
Address	[850]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	h
Min value	0
Max value	65535
Description	This parameter is used to set the first maintenance counter in generator operating hours. The module will count down the value of this counter when the generator is running. An alarm will be activated on the product when the counter reaches the value 0.

Variable	Meter 2 (h) (Customisable)
Address	[851]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	h
Min value	0
Max value	65535
Description	This parameter allows you to set the second maintenance counter in generator running hours. The module will count down the value of this counter when the generator is running. An alarm will be activated on the product when the counter reaches the value 0.

Variable	Meter 3 (h) (Customisable)
Address	[852]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	h
Min value	0
Max value	65535
Description	This parameter allows you to set the third maintenance counter in generator running hours. The module will count down the value of this counter when the generator is running. An alarm will be activated on the product when the counter reaches the value 0.

Variable	Meter 4 (h) (Customisable)
Address	[853]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	h
Min value	0
Max value	65535
Description	This parameter allows you to set the fourth maintenance counter in generator running hours. The module will count down the value of this counter when the generator is running. An alarm will be activated on the product when the counter reaches the value 0.

Variable	Meter 5 (h) (Customisable)
Address	[854]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	h
Min value	0
Max value	65535
Description	This parameter allows you to set the fifth maintenance counter in generator running hours. The module will count down the value of this counter when the generator is running. An alarm will be activated on the product when the counter reaches the value 0.

Variable	Meter 1 (d) (Customisable)
Address	[855]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	days
Min value	0
Max value	65535
Description	This parameter allows you to set the first maintenance counter in days. The module will count down the value of this counter every day, regardless of whether the generator is running or not. An alarm will be activated on the product when the counter reaches the value 0.

Variable	Meter 2 (d) (Customisable)
Address	[856]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	days
Min value	0
Max value	65535
Description	This parameter allows you to set the second maintenance counter in days. The module will count down the value of this counter every day, regardless of whether the generator is running or not. An alarm will be activated on the product when the counter reaches the value 0.

Variable	Meter 3 (d) (Customisable)
Address	[857]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	days
Min value	0
Max value	65535
Description	This parameter allows you to set the third maintenance counter in days. The module will count down the value of this counter every day, regardless of whether the generator is running or not. An alarm will be activated on the product when the counter reaches the value 0.

Variable	Meter 4 (d) (Customisable)
Address	[858]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	days
Min value	0
Max value	65535
Description	This parameter allows you to set the fourth maintenance counter in days. The module will count down the value of this counter every day, regardless of whether the generator is running or not. An alarm will be activated on the product when the counter reaches the value 0.

Variable	Meter 5 (d) (Customisable)
Address	[859]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	days
Min value	0
Max value	65535
Description	This parameter allows you to set the fifth maintenance counter in days. The module will count down the value of this counter every day, regardless of whether the generator is running or not. An alarm will be activated on the product when the counter reaches the value 0.

Variable	Pre-start timer (Glow plugs & Auxiliaries)
Address	[4455]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	s
Min value	0
Max value	65535
Description	Pre-start timer (Glow plugs & Auxiliaries)

Variable	Starter activation timer
Address	[4457]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	s
Min value	0
Max value	65535
Description	Starter activation timer

Variable	Delay between 2 starts
Address	[4458]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	s
Min value	0
Max value	65535
Description	Delay between 2 starts

Variable	Engine preheat timer
Address	[4464]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	s
Min value	0
Max value	65535
Description	Engine preheat timer

Variable	Speed stabilization timer
Address	[4465]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	s
Min value	0
Max value	65535
Description	Time during which the speed stabilizes.

Variable	Voltage stabilization timer
Address	[4466]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	s
Min value	0
Max value	65535
Description	Time during which the voltage stabilizes.

Variable	Cool down timer
Address	[4467]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	s
Min value	0
Max value	65535
Description	Cool down timer

Variable	Engine stop timer
Address	[4469]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	s
Min value	0
Max value	65535
Description	Engine stop timer

Variable	Fail to start engine timer
Address	[4476]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	s
Min value	0
Max value	65535
Description	Fail to start engine timer (if external automatic start)

Power Plant

Variable	Total generator kW on my segment
Address	[25]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	kW
Min value	-32500
Max value	32500
Description	Power produced by all generators on the current busbar segment

Variable	Total generator kVAR on my segment
Address	[26]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	kVAR
Min value	-32500
Max value	32500
Description	Reactive power produced by all generators on the current busbar segment

Variable	Global generators cos(φ) on my segment
Address	[27]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	-32500
Max value	32500
Description	Generators power factor on the current busbar segment

Variable	Total mains kW on my segment
Address	[28]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	kW
Min value	-32500
Max value	32500
Description	Power produced by all mains on the current busbar segment

Variable	Total mains kVAR on my segment
Address	[29]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	kVAR
Min value	-32500
Max value	32500
Description	Reactive power produced by all mains on the current busbar segment

Variable	Global mains cos(φ) on my segment
Address	[30]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	-32500
Max value	32500
Description	Mains power factor on the current busbar segment

Variable	Total renewable energies kW on my segment
Address	[31]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	kW
Min value	-32500
Max value	32500
Description	Power produced by all renewable energies on the current busbar segment

Variable	Total renewable energies kVAR on my segment
Address	[32]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	kVAR
Min value	-32500
Max value	32500
Description	Reactive power produced by all renewable energies on the current busbar segment

Variable	Global renewable energies cos(φ) on my segment
Address	[33]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	-32500
Max value	32500
Description	Renewable energies power factor on the current busbar segment

Variable	Total battery inverters kW on my segment
Address	[34]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	kW
Min value	-32500
Max value	32500
Description	Power produced by all battery inverters on the current busbar segment

Variable	Total battery inverters kVAR on my segment
Address	[35]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	kVAR
Min value	-32500
Max value	32500
Description	Reactive power produced by all battery inverters on the current busbar segment

Variable	Global battery inverters cos(φ) on my segment
Address	[36]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	-32500
Max value	32500
Description	Battery inverters power factor on the current busbar segment

Variable	Load kW on my segment
Address	[37]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	kW
Min value	-32500
Max value	32500
Description	Power consumed on the current busbar segment

Variable	Load kVAR on my segment
Address	[38]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	kVAR
Min value	-32500
Max value	32500
Description	Reactive power consumed on the current busbar segment

Variable	Load power factor on my segment
Address	[39]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	-32500
Max value	32500
Description	Load power factor on the current busbar segment

Variable	Reserve power kW
Address	[373]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	kW
Min value	-32768
Max value	32767
Description	Available power in kW for the current product. Reserve power = Nominal - active power

Variable	Reserve power %
Address	[375]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	%
Min value	0
Max value	1000
Description	Available power in % for the current product. Reserve power = 100*(Nominal - active power)/Nominal

Variable	Number of generator on bus
Address	[568]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	32
Description	Count of GE with breaker closed

Variable	Number of generator ready
Address	[569]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	32
Description	Number of generator ready

Variable	Number of mains on bus
Address	[572]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	32
Description	Number of Mains currently on the bus

Variable	Actual segment
Address	[4030]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	1
Max value	33
Description	Actual segment

Variable	Mains presence on the common bus bar
Address	[4032]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Status report: There is currently a mains closed on the bus bar

Variable	Slave in Service
Address	[4743]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Output function is high (=1) when the slave controls the installation in case of product redundancy

Generator protections

Variable	Fail to synchronize
Address	[4051]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	The automated system does not manage to synchronize the voltages on both sides of the circuit breaker (Check that the speed regulation and the AVR are controlled in the right range and adjust the PID settings)

Bus protections

Variable	Bus measure error
Address	[4315]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Fault report: Bus measure error, an other generator is on the bus bar but the module does not read bus voltage.

Communication

Variable	Controller communication fault
Address	[600]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Communication cannot be established. Check the wiring between the controllers, the product number and the number of controllers declared for each part number.

Variable	Missing GENSYS COMPACT PRIME
Address	[605]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Missing at least one GENSYS COMPACT PRIME module on the CAN bus

Variable	Missing MASTER COMPACT or BTB COMPACT
Address	[608]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Absence of at least one MASTER COMPACT or BTB COMPACT module on the CAN bus

Variable	Missing HYBRID COMPACT
Address	[612]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Missing at least one HYBRID module on the CAN bus

Variable	Missing BAT COMPACT
Address	[613]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Missing at least one BAT COMPACT module on the CAN Bus

Variable	J1939 Fault
Address	[650]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Communication with ECU cannot be established. Check ECU wiring and power supply.

Variable	Forced droop from inverter communication loss
Address	[903]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	In a hybrid setting, if the controller managing the inverter loses communication with it, it forces other controllers in droop mode via CAN bus.

Variable	CANopen fault
Address	[4750]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Communication with I/O extension cannot be established. Check the wiring and power supply of the CANopen extension module

System

Variable	Day of the week
Address	[10]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	6
Description	Day of the week (RTC)

Variable	Day
Address	[11]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	days
Min value	1
Max value	31
Description	Day (RTC)

Variable	Month
Address	[12]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	1
Max value	12
Description	Month (RTC)

Variable	Year
Address	[13]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	99
Description	Year (RTC)

Variable	Hours
Address	[14]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	h
Min value	0
Max value	23
Description	Hours (RTC)

Variable	Minutes
Address	[15]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	min
Min value	0
Max value	59
Description	Minutes (RTC)

Variable	Seconds
Address	[16]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	s
Min value	0
Max value	59
Description	Seconds (RTC)

Variable	100ms
Address	[17]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	s
Min value	0
Max value	9
Description	100ms timer (Internal)

Variable	Load uC
Address	[18]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	65535
Description	Microcontroler load (i.e nb run in main loop during 1s)

Variable	Overload uC
Address	[19]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Alarm activated when a microcontroller overload occurs

Variable	Slave mode enabled
Address	[45]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	This variable is equal to 1 if the module is in slave mode. The slave mode can be enabled with the parameter [2024] or when redundancy is enabled, the product is the slave and is currently not being used (the master is working).

Variable	Power down nb
Address	[353]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	32
Description	Unload priority generator number

Variable	Power up nb
Address	[354]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	32
Description	Load/start priority generator number

Variable	Generator state
Address	[4000]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	255
Description	Active power regulation mode (Power state machine)

Variable	Engine state
Address	[4001]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	255
Description	Active engine mode (Engine state machine)

Variable	Internal timer test
Address	[4025]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	s
Min value	0
Max value	65535
Description	Timer test variable

Variable	Easyflex warning
Address	[4213]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Overflow in equation

Variable	Easyflex error code
Address	[4214]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	65535
Description	Easyflex equation error (100*Line number + error code)

Statuses

Variable	Phase sequence match
Address	[306]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Identical phase order on both sides of the circuit breaker (OK = 1 or NOK = 0)

Variable	Voltage match
Address	[307]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Identical voltage amplitudes on both sides of the circuit breaker (OK = 1 or NOK = 0)

Variable	Frequency match
Address	[308]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Identical frequencies on both sides of the circuit breaker (OK = 1 or NOK = 0)

Variable	Phase match
Address	[309]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	The phase difference between the voltages on either side of the circuit breaker is zero (OK = 1 or NOK = 0)

Variable	Synch check relay OK
Address	[310]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Active if the sources are synchronized on both sides of circuit breaker (OK = 1 or Not OK = 0). Do not confuse with the closing order.

Variable	Engine start
Address	[4006]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Active if the automated system wants to start the engine. Inactive if the automated system wants to stop the engine.

Variable	Production request
Address	[4007]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Active if the automated system wants to produce power with the generator(s). Inactive if the automated system does not want to produce power with the generator(s).

Variable	Mode : 0=Manu / 1=Test / 2=Auto
Address	[4008]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	2
Description	Mode auto/manu/test (0=MANU/1=TEST/2=AUTO)

Variable	Authentification level
Address	[4049]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	-2
Max value	2
Description	Returns the COMPACT current authentification level (-1 if no password has been typed, 0 if a level 0 password has been set, 1 for level 1 or 2 for level 2).

Variable	Generator electrical fault summary
Address	[4656]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Fault report: Active if at least one protection configured as an electrical fault is active.

Variable	Alarms summary
Address	[4658]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Fault report: Active if at least one protection configured as an alarm is active.

Variable	Soft shut down summary
Address	[4659]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Fault report:Active if at least one protection configured as Soft shut down is active.

Variable	Hard shut down summary
Address	[4660]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Fault report: Active if at least one protection configured as Hard shut down is active.

Variable	Soft shut down + Help
Address	[4661]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Fault report: Another product is called for help, this output is associated with input Remote Soft shutdown + Help.

Variable	Generator electrical faults + Help
Address	[4662]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Fault report: Another product is called for help, this output is associated with input Remote Fault + Help.

Variable	Default LED
Address	[4664]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Status report: Active if the fault LED on the front of the product is lit (active on fault, reset on acknowledge and reset command).

Variable	Alarm LED
Address	[4665]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Status report: Active if the alarm LED on the front of the product is lit (active on alarm, reset on acknowledge and reset command).

Variable	Auto mode LED
Address	[4666]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Status report: Active if the Auto mode LED on the front of the product is lit

Variable	Test mode LED
Address	[4667]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Status report: Active if the Test mode LED on the front of the product is lit

Variable	Manu mode LED
Address	[4668]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Status report: Active if the Manu mode LED on the front of the product is lit

Variable	Generator LED
Address	[4669]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Status report: Active if the Generator LED on the front of the product is lit (active when speed is detected)

Variable	Protection validation
Address	[4681]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Status report: Active when all protections are activated after starting sequence (Under frequency, under voltage, oil pressure, temperature, etc...)

Variable	Override ON (Fault is currently inhibited)
Address	[4708]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Status report: Override mode is ON, at least one protection is currently inhibited by the override mode

Variable	Generator breaker LED
Address	[4734]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Status report: Active if the Generator breaker LED on the front of the product is lit

Variable	Bus LED
Address	[4736]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Status report: Active if the Bus LED on the front of the product is lit

Variable	In Synchronization
Address	[4739]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Activated when synchronization is in progress

Hysteresis

Variable	Hysteresis 1 output
Address	[4710]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Activation of analog Hysteresis function n°1, configuration of funtion is in Configuration/programming/Hysteresis

Variable	Hysteresis 2 output
Address	[4711]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Activation of analog Hysteresis function n°2, configuration of funtion is in Configuration/programming/Hysteresis

Variable	Hysteresis 3 output
Address	[4712]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Activation of analog Hysteresis function n°3, configuration of funtion is in Configuration/programming/Hysteresis

Variable	Hysteresis output activation on DI1
Address	[4713]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Output activation for 'Hysteresis on digital input' n°1. Function is managed by configurable low/high digital inputs in Digital Input menu.

Variable	Hysteresis output activation on DI2
Address	[4714]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Output activation for 'Hysteresis on digital input' n°2. Function is managed by configurable low/high digital inputs in Digital Input menu.

Variable	Hysteresis output activation on DI3
Address	[4715]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Output activation for 'Hysteresis on digital input' n°3. Function is managed by configurable low/high digital inputs in Digital Input menu.

Variable	Hysteresis output activation on DI4
Address	[4716]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Output activation for 'Hysteresis on digital input' n°4. Function is managed by configurable low/high digital inputs in Digital Input menu.

Variable	Hysteresis output activation on DI5
Address	[4717]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Output activation for 'Hysteresis on digital input' n°5. Function is managed by configurable low/high digital inputs in Digital Input menu.

Variable	Hysteresis output activation on DI6
Address	[4718]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Output activation for 'Hysteresis on digital input' n°6. Function is managed by configurable low/high digital inputs in Digital Input menu.

Variable	Hysteresis output activation on DI7
Address	[4719]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Output activation for 'Hysteresis on digital input' n°7. Function is managed by configurable low/high digital inputs in Digital Input menu.

Variable	Hysteresis output activation on DI8
Address	[4720]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Unit	Without unit
Min value	0
Max value	1
Description	Output activation for 'Hysteresis on digital input' n°8. Function is managed by configurable low/high digital inputs in Digital Input menu.

Parameters

Generator

Variable	Regulation type
Address	[2013]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Normal 1: Base load/Base PF 2: Forced droop Hz/V 3: Forced droop Hz only
Description	kW regulation used when paralleling between several gensets (0 = load sharing according to nominal power / 1 = Generator will follow a fix setpoint / 2 = Droop). Running in fixed setpoint or droop will inhibit load dependent start/stop options.

Variable	PT ratio
Address	[2100]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	65535
Description	This parameter allows you to set the ratio between the voltage present on the busbar and the voltage connected to the module. Example: Busbar voltage 20.000Vac / Voltage connected to the module 100 Vac: PT ratio value = 20.000/100 = 200. This PT ratio can be calculated or is indicated on the measuring transformers.

Variable	CT ratio
Address	[2101]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	65535
Description	This parameter is used to set the ratio between the current on the busbar and the current connected to the module. Example: Busbar current 1000A / Current connected to the module 5A: CT ratio value = 1000/5 = 200. This CT ratio can be calculated or is indicated on the measuring current transformers.

Variable	Nominal voltage
Address	[2102]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	V
Min value	0
Max value	65535
Description	This parameter is used to set the nominal voltage: - Three-phase and two-phase: Enter a phase-to-phase voltage. - Single-phase: Enter a phase-to-neutral voltage. All the protections based on the voltage as well as the control loops are calculated as a percentage of this value. For low voltage (400VAC, 440VAC, 480VAC, etc...) or high voltage (20.000VAC, 33.000VAC, etc...) applications, this variable must be adjusted.

Variable	Single phase nominal current
Address	[2103]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	A
Min value	0
Max value	65535
Description	Nominal Current

Variable	Nominal active power
Address	[2105]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	kW
Min value	1
Max value	32500
Description	This parameter is used to set the nominal active power (kW). All the protections based on the active power and the control loops are calculated as a percentage of this value.

Variable	Nominal reactive power
Address	[2106]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	kVAR
Min value	1
Max value	32500
Description	This parameter is used to set the nominal reactive power (kVAR). All the protections based on the reactive power and the control loops are calculated as a percentage of this value.

Variable	Base load Generator(s) kW setpoint
Address	[2107]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	kW
Min value	0
Max value	32500
Description	This parameter is used to set the active power setpoint of the generator/power plant when the product is configured in base load mode.

Variable	Droop (frequency)
Address	[2204]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	20
Description	Droop (frequency). The steeper the slope, the more the frequency will drop on an increase in kW A slope that is too shallow, on the other hand, will give an imprecise distribution.

Variable	Speed output inversion
Address	[2212]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	Activate this parameter if the frequency increases when the speed correction decreases and if the frequency decreases when the speed correction increases. This parameter makes it possible to operate the control without reversing the "Speed common" and "Speed output" terminals.

Variable	Droop (voltage)
Address	[2250]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	20
Description	Droop (voltage). The steeper the slope, the more the voltage will drop on an increase in kVAR. A slope that is too shallow, on the other hand, will give an imprecise distribution.

Variable	Power factor setpoint (inductive)
Address	[2253]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	100
Description	This parameter is used to set the generator/power plant cos(φ) set point that will be applied when paralleling to the mains. The imposed cos(φ) is an inductive cos(φ).

Variable	AVR signal output inversion
Address	[2254]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	Activate this parameter if the voltage increases when the voltage correction decreases and if the voltage decreases when the voltage correction increases. This parameter allows the regulation to be operated without reversing the "AVR common" and "AVR output" terminals.

Variable	Generator circuit breaker control type
Address	[2300]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Open Contact - Close Pulse 1: Open Contact - Close Contact 2: Open MNcoil - Close Pulse 3: Open MNcoil - Close Contact 4: Open Pulse - Close Pulse 5: Open Pulse - Close Contact
Description	Control type of the relay for the genset circuit breaker of the genset (pulse, hold, coil...)

Variable	Generator breaker control pulse length
Address	[2301]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	1
Max value	100
Description	Generator circuit breaker pulse length

Variable	Undervoltage coil deenergized time
Address	[2302]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	1
Max value	100
Description	Time during which the coil is no longer energized after a request to open the circuit breaker.

Variable	Undervoltage coil security timer
Address	[2303]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	1
Max value	100
Description	Minimum safety time between the moment the coil has been reenergized and the next request to close the circuit breaker.

Variable	Voltage acceptance
Address	[2800]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	120
Description	Maximum voltage difference (in % of the nominal value) between the voltages on either side of the circuit breaker to allow closing.

Variable	Frequency acceptance
Address	[2801]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Hz
Min value	0
Max value	20
Description	Maximum frequency difference between the voltages on either side of the circuit breaker to allow closing.

Variable	Phase Angle acceptance
Address	[2802]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	°
Min value	0
Max value	30
Description	Maximum phase difference between the voltages on either side of the circuit breaker to allow closing.

Variable	Fail to synchronize timer
Address	[2803]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Time after which the product will activate an alarm if it remains in synchronization without ever being able to give the closing command. Activation of this alarm means that the synchronization control loops are incorrectly set.

Variable	Action on fail to synchronize
Address	[2804]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 6: Fault (soft shutdown) + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Delay before new attempt
Address	[2806]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Delay before another attempt for an electrical fault. When an electrical fault is detected, the module opens its breaker and waits for an amount of time specified in this variable to attempt to close it again.

Variable	Number of closing attempts
Address	[2807]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	15
Description	Number of attempts for an electrical fault. When an electrical fault is detected, the module automatically tries to close its breaker to see if the fault has disapeared. If it isn't the case the module will try again until it has reached the number set in this variable

Variable	C2S dwell time
Address	[2809]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	100
Description	Synchronization dwell time before closing breaker

Variable	Phase offset
Address	[2812]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	°
Min value	-180
Max value	180
Description	Phase offset for synch. check relay (Ex: Dyn11)

Variable	Start timer
Address	[2855]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	This parameter is used to determine the time during which the start condition must be met in order to start generator(s).

Variable	Stop timer
Address	[2858]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	This parameter is used to determine the time during which the stop condition must be met in order to stop generator(s).

Variable	Low kW active power threshold
Address	[2866]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	1000
Description	This parameter allows you to define the minimum active power that the automatic system will impose on the generator. For example, this is the power that will be taken just after the circuit breaker is closed, before the load ramp. It is also the value at which the automatic system will open the circuit breaker during an unload ramp. This low limit protects against the risk of reverse power. It is recommended to set a low limit between 5 and 10% of the nominal active power.

Variable	Enable renewable energy production dependant start/stop
Address	[2883]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	This parameter activates the start/stop of generators according to the active power produced by renewable energies. As the active power generated by photovoltaic panels and wind turbines is susceptible to significant and rapid drops, it may be necessary to ensure a reserve power that is proportional to the active power produced by renewable energies. This function is not a substitute for start/stop of generators based on a fixed reserve power, but should be used as a complement. Example: If no energy is produced by renewable energies, this function will ensure a reserve of X (threshold to be defined) multiplied by 0 (current active power). This value being equal to 0, this function will ensure a reserve of 0kW in this precise case. It may therefore be necessary to use the standard power reserve function as a complement to ensure a reserve in the event of load impact.

Variable	Start : Reserve < Renewable energy current power multiplied by
Address	[2884]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	1000
Description	This parameter is used to determine the proportion of active power produced by renewable energies for which a reserve power must be provided by batteries and/or generators. This is the start threshold. It must be slightly different from the stop threshold to ensure hysteresis. Ex: If the value of the parameter is 40%, and renewable energies produce 100kW at a given time t, then, a generator will start if the reserve power provided by the batteries and/or generators falls below 40%*100kW = 40kW.

Variable	Start timer
Address	[2885]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	This parameter is used to determine the time during which the start condition must be met in order to start generator(s).

Variable	Stop timer
Address	[2886]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	This parameter is used to determine the time during which the stop condition must be met in order to stop generator(s).

Variable	Stop : Reserve > Renewable energy current power multiplied by
Address	[2889]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	1000
Description	This parameter is used to determine the proportion of active power produced by renewable energies for which a reserve power must be provided by batteries and/or generators. This is the stop threshold. It must be slightly different from the start threshold to ensure hysteresis. Ex: If the parameter value is 60%, and renewable energies produce 100kW at a given time t, then, a generator will stop if the reserve power provided by the batteries and/or generators remains above 60kW (60%*100kW) after the generator has stopped.

Variable	Frequency Global Gain
Address	[2900]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	100
Description	This parameter multiplies the 3 components of the regulation (P, I and D). In most cases it is recommended to leave the default values of P, I and D and to change only this parameter. If the system seems too slow, increase this parameter. If on the contrary the system is unstable due to a too strong correction, decrease this parameter. The frequency regulation is active during the synchronization if the frequency of the generator(s) is very far from the setpoint (value to be reached for coupling). When the frequency is close to the setpoint, the frequency regulation is not active, only the phase regulation is. Therefore, to correctly adjust the frequency regulation, it is necessary to move the frequency away from the setpoint, for example by changing the offset, or by manually changing the speed correction.

Variable	Frequency Proportional
Address	[2901]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	100
Description	This parameter should only be changed if the system has not been correctly regulated by changing the Gain alone. In this case, refer to the chapter "Control Loop PID" in the technical documentation of your product for a step-by-step method of adjustment. As a general rule : - G must remain fixed, neither too low nor too high, it multiplies the 3 other components - Set P, I and D to 0 - Increase P until you have a system that corrects quickly enough, without major instabilities. In most cases, an error persists between the measurement and the setpoint (value to be reached). - Increase I to correct this persistent error over time. - Increase D to reduce the oscillations, if they exist. The frequency regulation is active during the synchronization if the frequency of the generator(s) is very far from the setpoint (value to be reached for coupling). When the frequency is close to the setpoint, the frequency regulation is not active, only the phase regulation is. Therefore, to correctly adjust the frequency regulation, it is necessary to move the frequency away from the setpoint, for example by changing the offset, or by manually changing the speed correction.

Variable	Frequency Integral
Address	[2902]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	100
Description	This parameter should only be changed if the system has not been correctly regulated by changing the Gain alone. In this case, refer to the chapter "Control Loop PID" in the technical documentation of your product for a step-by-step method of adjustment. As a general rule : - G must remain fixed, neither too low nor too high, it multiplies the 3 other components - Set P, I and D to 0 - Increase P until you have a system that corrects quickly enough, without major instabilities. In most cases, an error persists between the measurement and the setpoint (value to be reached). - Increase I to correct this persistent error over time. - Increase D to reduce the oscillations, if they exist. The frequency regulation is active during the synchronization if the frequency of the generator(s) is very far from the setpoint (value to be reached for coupling). When the frequency is close to the setpoint, the frequency regulation is not active, only the phase regulation is. Therefore, to correctly adjust the frequency regulation, it is necessary to move the frequency away from the setpoint, for example by changing the offset, or by manually changing the speed correction.

Variable	Frequency Derivate
Address	[2903]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	100
Description	This parameter should only be changed if the system has not been correctly regulated by changing the Gain alone. In this case, refer to the chapter "Control Loop PID" in the technical documentation of your product for a step-by-step method of adjustment. As a general rule : - G must remain fixed, neither too low nor too high, it multiplies the 3 other components - Set P, I and D to 0 - Increase P until you have a system that corrects quickly enough, without major instabilities. In most cases, an error persists between the measurement and the setpoint (value to be reached). - Increase I to correct this persistent error over time. - Increase D to reduce the oscillations, if they exist. The frequency regulation is active during the synchronization if the frequency of the generator(s) is very far from the setpoint (value to be reached for coupling). When the frequency is close to the setpoint, the frequency regulation is not active, only the phase regulation is. Therefore, to correctly adjust the frequency regulation, it is necessary to move the frequency away from the setpoint, for example by changing the offset, or by manually changing the speed correction.

Variable	Phase Global Gain
Address	[2904]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	100
Description	This parameter multiplies the 3 components of the regulation (P, I and D). In most cases it is recommended to leave the default values of P, I and D and to change only this parameter. If the system seems too slow, increase this parameter. If on the contrary the system is unstable due to a too strong correction, decrease this parameter. Phase regulation is active during synchronization if the frequency of the generator(s) is close to the frequency setpoint (value to be reached for coupling). When the generator frequency is too far from the frequency setpoint, the phase regulation is not active, only the frequency regulation is. Therefore, to correctly adjust the phase regulation, it is necessary to have a frequency on the generator close to the frequency setpoint, by modifying the offset for example, or by having correctly adjusted the frequency regulation beforehand.

Variable	Phase Proportional
Address	[2905]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	100
Description	This parameter should only be changed if the system has not been correctly regulated by changing the Gain alone. In this case, refer to the chapter "Control Loop PID" in the technical documentation of your product for a step-by-step method of adjustment. As a general rule : - G must remain fixed, neither too low nor too high, it multiplies the 3 other components - Set P, I and D to 0 - Increase P until you have a system that corrects quickly enough, without major instabilities. In most cases, an error persists between the measurement and the setpoint (value to be reached). - Increase I to correct this persistent error over time. - Increase D to reduce the oscillations, if they exist. Phase regulation is active during synchronization if the frequency of the generator(s) is close to the frequency setpoint (value to be reached for coupling). When the generator frequency is too far from the frequency setpoint, the phase regulation is not active, only the frequency regulation is. Therefore, to correctly adjust the phase regulation, it is necessary to have a frequency on the generator close to the frequency setpoint, by modifying the offset for example, or by having correctly adjusted the frequency regulation beforehand.

Variable	Phase Integral
Address	[2906]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	100
Description	This parameter should only be changed if the system has not been correctly regulated by changing the Gain alone. In this case, refer to the chapter "Control Loop PID" in the technical documentation of your product for a step-by-step method of adjustment. As a general rule : - G must remain fixed, neither too low nor too high, it multiplies the 3 other components - Set P, I and D to 0 - Increase P until you have a system that corrects quickly enough, without major instabilities. In most cases, an error persists between the measurement and the setpoint (value to be reached). - Increase I to correct this persistent error over time. - Increase D to reduce the oscillations, if they exist. Phase regulation is active during synchronization if the frequency of the generator(s) is close to the frequency setpoint (value to be reached for coupling). When the generator frequency is too far from the frequency setpoint, the phase regulation is not active, only the frequency regulation is. Therefore, to correctly adjust the phase regulation, it is necessary to have a frequency on the generator close to the frequency setpoint, by modifying the offset for example, or by having correctly adjusted the frequency regulation beforehand.

Variable	Phase Derivate
Address	[2907]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	100
Description	This parameter should only be changed if the system has not been correctly regulated by changing the Gain alone. In this case, refer to the chapter "Control Loop PID" in the technical documentation of your product for a step-by-step method of adjustment. As a general rule : - G must remain fixed, neither too low nor too high, it multiplies the 3 other components - Set P, I and D to 0 - Increase P until you have a system that corrects quickly enough, without major instabilities. In most cases, an error persists between the measurement and the setpoint (value to be reached). - Increase I to correct this persistent error over time. - Increase D to reduce the oscillations, if they exist. Phase regulation is active during synchronization if the frequency of the generator(s) is close to the frequency setpoint (value to be reached for coupling). When the generator frequency is too far from the frequency setpoint, the phase regulation is not active, only the frequency regulation is. Therefore, to correctly adjust the phase regulation, it is necessary to have a frequency on the generator close to the frequency setpoint, by modifying the offset for example, or by having correctly adjusted the frequency regulation beforehand.

Variable	kW/Freq Gain
Address	[2908]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	100
Description	This parameter multiplies the 3 components of the regulation (P, I and D). In most cases it is recommended to leave the default values of P, I and D and to change only this parameter. If the system seems too slow, increase this parameter. If on the contrary the system is unstable due to a too strong correction, decrease this parameter. The kW regulation is active as soon as the genset(s) are paralleled to another source. The parameters of this regulation ensure simultaneously: - kW regulation in all conditions (load ramp, unload ramp, stabilization phase). - Frequency regulation when the generator(s) are paralleled to another source. Not to be confused with the regulation dedicated to the frequency which only ensures the synchronization before coupling.

Variable	kW/Freq Proportional
Address	[2909]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	100
Description	This parameter should only be changed if the system has not been correctly regulated by changing the Gain alone. In this case, refer to the chapter "Control Loop PID" in the technical documentation of your product for a step-by-step method of adjustment. As a general rule : - G must remain fixed, neither too low nor too high, it multiplies the 3 other components - Set P, I and D to 0 - Increase P until you have a system that corrects quickly enough, without major instabilities. In most cases, an error persists between the measurement and the setpoint (value to be reached). - Increase I to correct this persistent error over time. - Increase D to reduce the oscillations, if they exist. The kW regulation is active as soon as the genset(s) are paralleled to another source. The parameters of this regulation ensure simultaneously: - kW regulation in all conditions (load ramp, unload ramp, stabilization phase). - Frequency regulation when the generator(s) are paralleled to another source. Not to be confused with the regulation dedicated to the frequency which only ensures the synchronization before coupling.

Variable	kW/Freq Integral
Address	[2910]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	100
Description	This parameter should only be changed if the system has not been correctly regulated by changing the Gain alone. In this case, refer to the chapter "Control Loop PID" in the technical documentation of your product for a step-by-step method of adjustment. As a general rule : - G must remain fixed, neither too low nor too high, it multiplies the 3 other components - Set P, I and D to 0 - Increase P until you have a system that corrects quickly enough, without major instabilities. In most cases, an error persists between the measurement and the setpoint (value to be reached). - Increase I to correct this persistent error over time. - Increase D to reduce the oscillations, if they exist. The kW regulation is active as soon as the genset(s) are paralleled to another source. The parameters of this regulation ensure simultaneously: - kW regulation in all conditions (load ramp, unload ramp, stabilization phase). - Frequency regulation when the generator(s) are paralleled to another source. Not to be confused with the regulation dedicated to the frequency which only ensures the synchronization before coupling.

Variable	kW/Freq Derivative
Address	[2911]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	100
Description	This parameter should only be changed if the system has not been correctly regulated by changing the Gain alone. In this case, refer to the chapter "Control Loop PID" in the technical documentation of your product for a step-by-step method of adjustment. As a general rule : - G must remain fixed, neither too low nor too high, it multiplies the 3 other components - Set P, I and D to 0 - Increase P until you have a system that corrects quickly enough, without major instabilities. In most cases, an error persists between the measurement and the setpoint (value to be reached). - Increase I to correct this persistent error over time. - Increase D to reduce the oscillations, if they exist. The kW regulation is active as soon as the genset(s) are paralleled to another source. The parameters of this regulation ensure simultaneously: - kW regulation in all conditions (load ramp, unload ramp, stabilization phase). - Frequency regulation when the generator(s) are paralleled to another source. Not to be confused with the regulation dedicated to the frequency which only ensures the synchronization before coupling.

Variable	Frequency centering
Address	[2914]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	100
Description	The kW regulation affects both kW and frequency simultaneously when the genset(s) are paralleled to another source. This parameter allows you to give more or less importance to each in the regulation. The higher the value of this parameter, the more the frequency will be corrected at the disadvantage of the kW. Conversely, the lower the value of this parameter, the more the KW will be corrected at the disadvantage of the frequency. In most cases, it is recommended not to change the default value.

Variable	Voltage Global Gain
Address	[2950]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	100
Description	This parameter multiplies the 3 components of the regulation (P, I and D). In most cases it is recommended to leave the default values of P, I and D and to change only this parameter. If the system seems too slow, increase this parameter. If on the contrary the system is unstable due to a too strong correction, decrease this parameter. The voltage regulation is active during the whole synchronization phase of the generator(s). To correctly adjust the voltage regulation, it is necessary to move the voltage away from the setpoint, for example by changing the offset, or by manually changing the voltage correction.

Variable	Voltage Proportional
Address	[2951]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	100
Description	This parameter should only be changed if the system has not been correctly regulated by changing the Gain alone. In this case, refer to the chapter "Control Loop PID" in the technical documentation of your product for a step-by-step method of adjustment. As a general rule : - G must remain fixed, neither too low nor too high, it multiplies the 3 other components - Set P, I and D to 0 - Increase P until you have a system that corrects quickly enough, without major instabilities. In most cases, an error persists between the measurement and the setpoint (value to be reached). - Increase I to correct this persistent error over time. - Increase D to reduce the oscillations, if they exist. The voltage regulation is active during the whole synchronization phase of the generator(s). To correctly adjust the voltage regulation, it is necessary to move the voltage away from the setpoint, for example by changing the offset, or by manually changing the voltage correction.

Variable	Voltage Integral
Address	[2952]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	100
Description	This parameter should only be changed if the system has not been correctly regulated by changing the Gain alone. In this case, refer to the chapter "Control Loop PID" in the technical documentation of your product for a step-by-step method of adjustment. As a general rule : - G must remain fixed, neither too low nor too high, it multiplies the 3 other components - Set P, I and D to 0 - Increase P until you have a system that corrects quickly enough, without major instabilities. In most cases, an error persists between the measurement and the setpoint (value to be reached). - Increase I to correct this persistent error over time. - Increase D to reduce the oscillations, if they exist. The voltage regulation is active during the whole synchronization phase of the generator(s). To correctly adjust the voltage regulation, it is necessary to move the voltage away from the setpoint, for example by changing the offset, or by manually changing the voltage correction.

Variable	Voltage Derivate
Address	[2953]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	100
Description	This parameter should only be changed if the system has not been correctly regulated by changing the Gain alone. In this case, refer to the chapter "Control Loop PID" in the technical documentation of your product for a step-by-step method of adjustment. As a general rule : - G must remain fixed, neither too low nor too high, it multiplies the 3 other components - Set P, I and D to 0 - Increase P until you have a system that corrects quickly enough, without major instabilities. In most cases, an error persists between the measurement and the setpoint (value to be reached). - Increase I to correct this persistent error over time. - Increase D to reduce the oscillations, if they exist. The voltage regulation is active during the whole synchronization phase of the generator(s). To correctly adjust the voltage regulation, it is necessary to move the voltage away from the setpoint, for example by changing the offset, or by manually changing the voltage correction.

Variable	kVAR/Voltage Gain
Address	[2954]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	100
Description	This parameter multiplies the 3 components of the regulation (P, I and D). In most cases it is recommended to leave the default values of P, I and D and to change only this parameter. If the system seems too slow, increase this parameter. If on the contrary the system is unstable due to a too strong correction, decrease this parameter. The kVAR regulation is active as soon as the genset(s) are paralleled to another source. The parameters of this regulation ensure simultaneously: - kVAR regulation in all conditions (load ramp, unload ramp, stabilization phase). - Voltage regulation when the genset(s) are paralleled to another source. Not to be confused with the dedicated voltage regulation which only ensures the synchronization before coupling.

Variable	kVAR/Voltage Proportional
Address	[2955]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	100
Description	This parameter should only be changed if the system has not been correctly regulated by changing the Gain alone. In this case, refer to the chapter "Control Loop PID" in the technical documentation of your product for a step-by-step method of adjustment. As a general rule : - G must remain fixed, neither too low nor too high, it multiplies the 3 other components - Set P, I and D to 0 - Increase P until you have a system that corrects quickly enough, without major instabilities. In most cases, an error persists between the measurement and the setpoint (value to be reached). - Increase I to correct this persistent error over time. - Increase D to reduce the oscillations, if they exist. The kVAR regulation is active as soon as the genset(s) are paralleled to another source. The parameters of this regulation ensure simultaneously: - kVAR regulation in all conditions (load ramp, unload ramp, stabilization phase). - Voltage regulation when the genset(s) are paralleled to another source. Not to be confused with the dedicated voltage regulation which only ensures the synchronization before coupling.

Variable	kVAR/Voltage Integral
Address	[2956]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	100
Description	This parameter should only be changed if the system has not been correctly regulated by changing the Gain alone. In this case, refer to the chapter "Control Loop PID" in the technical documentation of your product for a step-by-step method of adjustment. As a general rule : - G must remain fixed, neither too low nor too high, it multiplies the 3 other components - Set P, I and D to 0 - Increase P until you have a system that corrects quickly enough, without major instabilities. In most cases, an error persists between the measurement and the setpoint (value to be reached). - Increase I to correct this persistent error over time. - Increase D to reduce the oscillations, if they exist. The kVAR regulation is active as soon as the genset(s) are paralleled to another source. The parameters of this regulation ensure simultaneously: - kVAR regulation in all conditions (load ramp, unload ramp, stabilization phase). - Voltage regulation when the genset(s) are paralleled to another source. Not to be confused with the dedicated voltage regulation which only ensures the synchronization before coupling.

Variable	kVAR/Voltage Derivate
Address	[2957]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	100
Description	This parameter should only be changed if the system has not been correctly regulated by changing the Gain alone. In this case, refer to the chapter "Control Loop PID" in the technical documentation of your product for a step-by-step method of adjustment. As a general rule : - G must remain fixed, neither too low nor too high, it multiplies the 3 other components - Set P, I and D to 0 - Increase P until you have a system that corrects quickly enough, without major instabilities. In most cases, an error persists between the measurement and the setpoint (value to be reached). - Increase I to correct this persistent error over time. - Increase D to reduce the oscillations, if they exist. The kVAR regulation is active as soon as the genset(s) are paralleled to another source. The parameters of this regulation ensure simultaneously: - kVAR regulation in all conditions (load ramp, unload ramp, stabilization phase). - Voltage regulation when the genset(s) are paralleled to another source. Not to be confused with the dedicated voltage regulation which only ensures the synchronization before coupling.

Variable	Voltage centering
Address	[2958]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	100
Description	The kVAR regulation simultaneously affects the kVAR and the voltage when the genset(s) are paralleled to another source. This parameter allows you to give more or less importance to each in the regulation. The higher the value of this parameter, the more the voltage will be corrected at the disadvantage of the kVARs. Conversely, the lower the value of this parameter, the more the KVARs will be corrected at the disadvantage of the voltage. In most cases, it is recommended not to change the default value.

Variable	Off load timer (Only for start with timer)
Address	[3478]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	This delay is used during a start on load with delay, either by activating a digital input configured as "Start on load with delay" in auto mode, or by using the test mode by having configured the product to do a "Start on load with delay" test. It corresponds to the waiting time between the end of the engine sequence and the closure of the generator breaker.

Variable	Pulse frequency dead band
Address	[3650]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	10000
Description	This setpoint adjusts the Dead Band in case of speed control by pulses. This dead band in % determinated the area around nominal frequency with no actions regarding +/- pulses output. If nominal frequency 50Hz, dead band 1 %. No pulse output between 49,5Hz to 50,5Hz

Variable	Pulse voltage dead band
Address	[3651]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	10000
Description	This setpoint adjusts the Dead Band in case of voltage control by pulses. This dead band in % determinated the area around nominal voltage, with no actions regarding +/- pulses output. If nominal voltage 400Vac, dead band 1 %. No pulse output between 396Vac to 404Vac.

Variable	Frequency pulse divider
Address	[3652]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	100
Description	This setpoint adjusts the "pulse divider" in case of speed control by pulses. This pulse divider is able to change the response time of speed control by pulses. If you increase the value of pulse divider, you will decrease the time of pulse active.

Variable	Voltage pulse divider
Address	[3653]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	100
Description	This setpoint adjusts the "pulse divider" in case of voltage control by pulses. This pulse divider is able to change the response time of voltage control by pulses. If you increase the value of pulse divider, you will decrease the time of pulse active.

Bus

Variable	PT ratio
Address	[2150]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	65535
Description	This parameter allows you to set the ratio between the voltage present on the busbar and the voltage connected to the module. Example: Busbar voltage 20.000Vac / Voltage connected to the module 100 Vac: PT ratio value = 20.000/100 = 200. This PT ratio can be calculated or is indicated on the measuring transformers.

Variable	Nominal voltage
Address	[2152]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	V
Min value	0
Max value	65535
Description	This parameter is used to set the nominal voltage: - Three-phase and two-phase: Enter a phase-to-phase voltage. - Single-phase: Enter a phase-to-neutral voltage. All the protections based on the voltage are calculated as a percentage of this value. For low voltage (400VAC, 440VAC, 480VAC, etc...) or high voltage (20.000VAC, 33.000VAC, etc...) applications, this variable must be adjusted.

Engine

Variable	Hide engine measurement
Address	[2032]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	This parameter determines if the product should hide the engine measurements: - No: Engine measurements will be displayed - Yes: Engine measurements will not be displayed

Variable	Type of engine speed measurement
Address	[2200]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Pick-up 1: Alternator 2: J1939/MTU MDEC
Description	This parameter allows you to determine the way in which the automatic system will get the speed measurement. 3 choices are available: - Pick-up : In this case the speed measurement is deduced from the frequency of the pick-up signal. An incorrect speed value may be due to a wrong setting of the number of teeth. - Alternator : In this case the speed measurement is deduced from the frequency measured on the alternator voltages. An incorrect speed value may be due to an incorrect setting of the number of pairs of poles. - J1939/MTU MDEC : In this case the speed measurement is read in J1939 or via the MDEC protocol. An incorrect speed value may be due to a wrong wiring (CAN2) or a wrong address configured for the ECU identifier.

Variable	Number of teeth for pick-up
Address	[2201]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	1
Max value	65535
Description	This parameter sets the number of teeth for the pick-up that determines the speed value when measured from the pick-up input. A wrong value for the number of teeth will result in a wrong value for the speed.

Variable	Number of pole pairs
Address	[2202]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	50
Description	This parameter sets the number of pole pairs of the alternator, which is used to determine the value of the speed when it is measured from the frequency of the alternator. A wrong value of the number of pole pairs will result in a wrong value of the speed.

Variable	Nominal speed
Address	[2207]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	rpm
Min value	0
Max value	10000
Description	This parameter determines the speed at which the engine runs at steady state. A wrong value of this parameter can cause the speed and frequency protections to trip, the engine to stop during start-up sequences, and a wrong centering of the frequency. Set 1500 rpm for a 50Hz application and 1800 rpm for a 60Hz application.

Variable	ECU Manufacturer
Address	[3100]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	1: Scania 2: Volvo 3: Perkins 4: Iveco 5: Generic 6: Cummins 7: John Deere 8: Caterpillar 9: Deutz 10: MTU 11: Detroit diesel
Description	This parameter allows you to choose the manufacturer of your ECU/Engine. If the manufacturer of your ECU/Engine is not present in the list, set the parameter to Generic.

Variable	Units of measurement
Address	[3117]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Bar, °C, L/h 1: PSI, °F, G/h
Description	This parameter allows you to set the J1939 system of units of measurement.

Variable	External start sequence
Address	[3452]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Disabled 1: Enable
Description	This parameter allows to determine if the module must manage the engine sequence or if another device manages it. 2 values can be configured: - Disabled: The management of the start sequence externally is disabled. The module manages the entire engine sequence. - Enabled: The engine sequence is managed by another device. In this case, when a remote start is activated in Auto mode or when the start button is pressed in manual mode, the module gives a start command (via a digital output) to the module responsible for the engine sequence and waits for a configurable delay before going to fault if the engine has not started.

Variable	External module start failure timer
Address	[3453]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	This parameter, which takes effect when the external start sequence is activated, allows you to set the time after which the product activates a fault if the engine has not started.

Variable	Pre-start timer (Glow plugs & Auxiliaries)
Address	[3456]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	This timer determines how long the Pre-Start output will remain active. This output can be used to activate the glow plugs or any auxiliary functions of Pre-Start (water preheating, pre-lubrication, etc.).

Variable	Maximum holding time of the starter
Address	[3457]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	This parameter allows to determine the maximum activation time of the starter. If the speed has not reached the value configured in the parameter Crank drop out after this time, the starter will deactivate and the module will make further start attempts according to the configuration made.

Variable	Delay between each start
Address	[3458]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	This parameter allows you to determine the waiting time between start attempts (i.e. activation of the starters).

Variable	Activation order of starters
Address	[3459]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Alternative 1: Consecutive
Description	This parameter determines the order in which the starters will activate if there are multiple starters configured. 2 choices are possible: - Alternative : The automated system activates the starters one after the other and repeats with the first. - Consecutive : Each starter executes several trials consecutively before handing over to the next starter.

Variable	First starter
Address	[3460]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	1
Max value	3
Description	This parameter determines the first starter that the module will activate if there are several starters configured.

Variable	Number of attempts per starter
Address	[3461]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	15
Description	This parameter determines the number of start attempts made on each starter before stopping the sequence with a fault display.

Variable	Stop threshold of the first starter
Address	[3462]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	rpm
Min value	0
Max value	10000
Description	This parameter determines the speed threshold at which starter #1 will cut out (unless the threshold is reached faster than the minimum holding time of the starter, in which case the automated system will respect the minimum holding time).

Variable	Stop threshold of the second starter
Address	[3463]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	rpm
Min value	0
Max value	10000
Description	This parameter determines the speed threshold at which starter #2 will cut out (unless the threshold is reached faster than the minimum holding time of the starter, in which case the automated system will respect the minimum holding time).

Variable	Stop threshold of the third starter
Address	[3464]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	rpm
Min value	0
Max value	10000
Description	This parameter determines the speed threshold at which starter #3 will cut out (unless the threshold is reached faster than the minimum holding time of the starter, in which case the automated system will respect the minimum holding time).

Variable	Minimum holding time of the starter
Address	[3466]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	This parameter determines the minimum activation time of the starter. The starter will remain active for this time even if the speed reaches the threshold set in the parameter Crank drop out faster.

Variable	Engine preheat timer (Idle or Nominal speed)
Address	[3467]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Engine preheat timer without load. During the entire engine preheat time, the engine can run at nominal speed or at idle: See page Engine / Start/Stop.

Variable	Idle speed
Address	[3468]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	rpm
Min value	0
Max value	10000
Description	This parameter allows you to define the idle speed that will be applied during the preheating phase and/or the cooling phase (depending on the configuration made). When the engine speed is controlled from the speed output of the module, a digital output configured as Idle speed must be wired on the speed control to apply the idle speed. In the case of speed control in J1939, the product will automatically apply the idle speed in the speed frame TSC1.

Variable	Speed stabilization timer
Address	[3469]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Time during which the speed must remain stable between 95 and 105% of nominal before continuing the engine sequence. By default, the speed must remain stable for 3s between 95 and 105% of nominal. Not to be confused with the maximum time (available in the protection pages) at the end of which the product will stop the engine if the speed has not stabilized.

Variable	Cooling timer (Idle or Nominal speed)
Address	[3470]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Time delay for the engine to cool down after the stop request. While the engine is cooling down, the engine can run at nominal speed or at idle: See page Engine / Start/Stop.

Variable	Fail to stop engine
Address	[3471]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Fail to stop engine timer

Variable	Energize to stop hold timer
Address	[3472]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Holding time of the energize to stop output after the speed measurement has reached zero.

Variable	Cooling fan activation threshold
Address	[3475]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	°C
Min value	-32768
Max value	32767
Description	This parameter allows to define the temperature of the coolant above which the fan will be activated. A digital output of the module must be configured as Cooling fan.

Variable	Engine speed during cooling
Address	[3476]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Nominal speed 1: Idle speed
Description	This parameter determines the speed at which the engine should run during the cooling phase.

Variable	Engine type
Address	[3477]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Diesel 1: Gas
Description	This parameter allows you to define the engine type of the generator. 2 choices are available: - Diesel: Management of the fuel activation and starter(s), management of the preheating, stabilization, cooling phases, etc... - Gas: Management of the ignition in addition to the other elements common to diesel engines.

Variable	Engine speed during preheating
Address	[3479]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Nominal speed 1: Idle speed
Description	This parameter determines the speed at which the engine should run during the preheating phase.

Variable	Time before ignition
Address	[3480]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Time during which the starter is active without ignition

Variable	Ignition time on start
Address	[3481]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Ignition activation time at engine start

Variable	Ignition time on stop
Address	[3482]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Ignition activation time at engine stop

CAN bus ECU/ECM

Variable	ECU ID
Address	[3102]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	255
Description	This parameter allows to define the CAN identifier of the ECU. A wrong value configured on this parameter results in an impossibility of reading and displaying the measurements transmitted by the ECU.

Variable	COMPACT ID
Address	[3103]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	255
Description	This parameter allows to define the CAN identifier of the module. A wrong value set on this parameter results in the impossibility to send commands to the ECU (i.e. to control the engine speed, the engine start and stop, etc.).

Variable	Enable communication protocol
Address	[3118]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: J1939 2: MTU MDEC CAN module 201, 303 and 304 3: MTU MDEC CAN module 302
Description	This parameter enables the J1939 communication protocol or the MTU MDEC communication protocol (MTU MDEC can only be selected if the option has been enabled and the controller is connected.). When the J1939 protocol is activated, the CAN 2 bus speed is forced to 250kb/s. The parameter which allows the CAN 2 speed to be set no longer has any effect. When the MDEC protocol is activated, the speed of the CAN 2 bus is forced to 125kb/s. The parameter which allows the CAN 2 speed to be set no longer has any effect.

Variable	Secondary ECU ID
Address	[3125]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	255
Description	This parameter assigns a second CAN identifier for a secondary ECU. The ID will only be considered if the parameter [3126] is set to enable. This setup is beneficial for installations where two ECUs manage the system's measurements. The ECUs must send unique SPNs. Note that the PNGs DM1 and DM4 sent from the secondary ECU will not be considered.

Variable	Enable secondary ECU
Address	[3126]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	This parameter enables the functionality for assigning a CAN identifier to a secondary ECU. It is used in setups where two ECUs are required to handle the system's measurements.

Inputs/outputs

Variable	Speed governor amplitude
Address	[2205]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	V
Min value	0
Max value	1000
Description	This parameter determines the amplitude of the speed output. Speed output voltage = Speed output offset + (Speed correction * Speed output amplitude). Ex: If the speed output offset is 5V and the amplitude is 2.5V, the speed output may vary between a minimum correction of 2.5V (5V - 2.5V) and a maximum correction of 7.5V (5V + 2.5V). On a 50Hz application, this parameter must be set to obtain a minimum correction of 47.5Hz and a maximum correction of 52.5Hz. On a 60Hz application, this parameter should be set to obtain a minimum correction of 57.5Hz and a maximum correction of 62.5Hz. In manual mode: - Use the shift + up arrow combination in the speed control page to increase the speed correction. - Use the shift + down arrow in the speed control page to decrease the speed correction.

Variable	Speed governor offset
Address	[2206]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	V
Min value	-1000
Max value	1000
Description	This parameter determines the speed output offset. Speed output voltage = Speed output offset + (Speed correction * Speed output amplitude). Ex: If the speed output offset is 5V and the amplitude is 2.5V, the speed output may vary between a minimum correction of 2.5V (5V - 2.5V) and a maximum correction of 7.5V (5V + 2.5V). On a 50Hz application, this parameter should be set to 50Hz when there is no correction. On a 60Hz application, this parameter should be set to 60Hz when there is no correction. In manual mode: - Use the shift + up arrow combination in the speed control page to increase the speed correction. - Use the shift + down arrow in the speed control page to decrease the speed correction.

Variable	Analog output 1 operating mode
Address	[2213]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Speed regulation 1: Custom
Description	Analog output 1 operating mode : - Standard use, select this mode to control a speed governor (value 0). - Spare analog output, set the desired voltage value to the analog output in variable 2214 (value 1).

Variable	Custom setpoint analog output 1
Address	[2214]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	V
Min value	-1000
Max value	1000
Description	The value sets in this variable corresponds to the voltage applied to the analog 1 output if the analog output is used as a spare output.

Variable	AVR Amplitude
Address	[2251]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	V
Min value	0
Max value	1000
Description	This parameter determines the amplitude of the voltage output. Voltage output = Voltage output offset + (Voltage correction * Voltage output amplitude). Ex : If the voltage output offset is 5V and the amplitude is 2.5V, the voltage output can vary between a minimum correction of 2.5V (5V - 2.5V) and a maximum correction of 7.5V (5V + 2.5V). On a 400V application, this parameter must be set to obtain a minimum correction of 370V and a maximum correction of 430V. In manual mode: - Use the shift + up arrow combination in the AVR control page to increase the voltage correction. - Use the combination shift + down arrow in the AVR control page to decrease the voltage correction.

Variable	AVR Offset
Address	[2252]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	V
Min value	-1000
Max value	1000
Description	This parameter determines the offset of the voltage output. Voltage output = Voltage output offset + (Voltage correction * Voltage output amplitude). Ex : If the voltage output offset is 5V and the amplitude is 2.5V, the voltage output can vary between a minimum correction of 2.5V (5V - 2.5V) and a maximum correction of 7.5V (5V + 2.5V). On a 400V application, this parameter must be set to obtain 400V when there is no correction. In manual mode: - Use the shift + up arrow combination in the AVR control page to increase the voltage correction. - Use the combination shift + down arrow in the AVR control page to decrease the voltage correction.

Variable	Analog output 2 operating mode
Address	[2255]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: AVR regulation 1: Custom
Description	Analog output 2 operating mode : - Standard use, select this mode to control an AVR (value 0). - Spare analog output, set the desired voltage value to the analog output in variable 2256 (value 1).

Variable	Custom setpoint analog output 2
Address	[2256]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	V
Min value	-1000
Max value	1000
Description	The value sets in this variable corresponds to the voltage applied to the analog 2 output if the analog output is used as a spare output.

Variable	Validity on analog input 1
Address	[2681]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Analog input 1 validity when set as digital input (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on analog input 2
Address	[2682]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Analog input 2 validity when set as digital input (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on analog input 3
Address	[2683]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Analog input 3 validity when set as digital input (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Polarity NO/NC on AI 1
Address	[2684]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of Analog input 1 when set as digital input (0=Normaly Open/1=Normaly Close)

Variable	Polarity NO/NC on AI 2
Address	[2685]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of Analog input 2 when set as digital input (0=Normaly Open/1=Normaly Close)

Variable	Polarity NO/NC on AI 3
Address	[2686]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of Analog input 3 when set as digital input (0=Normaly Open/1=Normaly Close)

Variable	Delay on AI activation 1
Address	[2687]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Activation delay of Analog input 1 when set as digital input

Variable	Delay on AI activation 2
Address	[2688]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Activation delay of Analog input 2 when set as digital input

Variable	Delay on AI activation 3
Address	[2689]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Activation delay of Analog input 3 when set as digital input

Variable	Timer ON Digital Input 1
Address	[2709]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Digital Input 1 activation timer

Variable	Timer ON Digital Input 2
Address	[2710]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Digital Input 2 activation timer

Variable	Timer ON Digital Input 3
Address	[2711]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Digital Input 3 activation timer

Variable	Timer ON Digital Input 4
Address	[2712]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Digital Input 4 activation timer

Variable	Timer ON Digital Input 5
Address	[2713]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Digital Input 5 activation timer

Variable	Timer ON Digital Input 6
Address	[2714]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Digital Input 6 activation timer

Variable	Timer ON Digital Input 7
Address	[2715]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Digital Input 7 activation timer

Variable	Timer ON Digital Input 8
Address	[2716]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Digital Input 8 activation timer

Variable	Timer ON Digital Input 9
Address	[2717]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Digital Input 9 activation timer

Variable	Timer OFF Digital Input 1
Address	[2718]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Digital Input 1 desactivation timer

Variable	Timer OFF Digital Input 2
Address	[2719]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Digital Input 2 desactivation timer

Variable	Timer OFF Digital Input 3
Address	[2720]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Digital Input 3 desactivation timer

Variable	Timer OFF Digital Input 4
Address	[2721]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Digital Input 4 desactivation timer

Variable	Timer OFF Digital Input 5
Address	[2722]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Digital Input 5 desactivation timer

Variable	Timer OFF Digital Input 6
Address	[2723]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Digital Input 6 desactivation timer

Variable	Timer OFF Digital Input 7
Address	[2724]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Digital Input 7 desactivation timer

Variable	Timer OFF Digital Input 8
Address	[2725]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Digital Input 8 desactivation timer

Variable	Timer OFF Digital Input 9
Address	[2726]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Digital Input 9 desactivation timer

Variable	Validity on digital input 1
Address	[2727]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Digital Input 1 activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on digital input 2
Address	[2728]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Digital Input 2 activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on digital input 3
Address	[2729]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Digital Input 3 activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on digital input 4
Address	[2730]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Digital Input 4 activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on digital input 5
Address	[2731]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Digital Input 5 activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on digital input 6
Address	[2732]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Digital Input 6 activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on digital input 7
Address	[2733]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Digital Input 7 activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on digital input 8
Address	[2734]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Digital Input 8 activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on digital input 9
Address	[2735]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Digital Input 9 activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Polarity NO/NC on DI 1
Address	[2736]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of Digital Input 1 (0=Normaly Open/1=Normaly Close)

Variable	Polarity NO/NC on DI 2
Address	[2737]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of Digital Input 2 (0=Normaly Open/1=Normaly Close)

Variable	Polarity NO/NC on DI 3
Address	[2738]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of Digital Input 3 (0=Normaly Open/1=Normaly Close)

Variable	Polarity NO/NC on DI 4
Address	[2739]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of Digital Input 4 (0=Normaly Open/1=Normaly Close)

Variable	Polarity NO/NC on DI 5
Address	[2740]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of Digital Input 5 (0=Normaly Open/1=Normaly Close)

Variable	Polarity NO/NC on DI 6
Address	[2741]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of Digital Input 6 (0=Normaly Open/1=Normaly Close)

Variable	Polarity NO/NC on DI 7
Address	[2742]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of Digital Input 7 (0=Normaly Open/1=Normaly Close)

Variable	Polarity NO/NC on DI 8
Address	[2743]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of Digital Input 8 (0=Normaly Open/1=Normaly Close)

Variable	Polarity NO/NC on DI 9
Address	[2744]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of Digital Input 9 (0=Normaly Open/1=Normaly Close)

Variable	Polarity NE/ND DO 1
Address	[2751]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Polarity (0=Normaly De-energized / 1=Normaly Energized) Digital output 1

Variable	Polarity NE/ND DO 2
Address	[2752]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Polarity (0=Normaly De-energized / 1=Normaly Energized) Digital output 2

Variable	Polarity NE/ND DO 3
Address	[2753]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Polarity (0=Normaly De-energized / 1=Normaly Energized) Digital output 3

Variable	Polarity NE/ND DO 4
Address	[2754]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Polarity (0=Normaly De-energized / 1=Normaly Energized) Digital output 4

Variable	Polarity NE/ND DO 5
Address	[2755]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Polarity (0=Normaly De-energized / 1=Normaly Energized) Digital output 5

Variable	Polarity NE/ND DO 6
Address	[2756]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Polarity (0=Normaly De-energized / 1=Normaly Energized) Digital output 6

Variable	Direction NO/NC Relay 1
Address	[2759]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Relay 1 Direction (0=Normaly Open / 1=Normaly Closed)

Variable	Direction NO/NC Relay 2
Address	[2760]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Relay 2 Direction (0=Normaly Open / 1=Normaly Closed)

Variable	Pulse length DO 1
Address	[2761]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Digital ouput 1 pulse timer (0 = no pulse, continous activation)

Variable	Pulse length DO 2
Address	[2762]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Digital ouput 2 pulse timer (0 = no pulse, continous activation)

Variable	Pulse length DO 3
Address	[2763]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Digital ouput 3 pulse timer (0 = no pulse, continous activation)

Variable	Pulse length DO 4
Address	[2764]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Digital ouput 4 pulse timer (0 = no pulse, continous activation)

Variable	Pulse length DO 5
Address	[2765]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Digital ouput 5 pulse timer (0 = no pulse, continous activation)

Variable	Pulse length DO 6
Address	[2766]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Digital ouput 6 pulse timer (0 = no pulse, continous activation)

Variable	Pulse length R 1
Address	[2767]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Relay ouput 1 pulse timer (0 = no pulse, continous activation)

Variable	Pulse length R 2
Address	[2768]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Relay ouput 2 pulse timer (0 = no pulse, continous activation)

Variable	Activation delay DO 01
Address	[2793]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Delay before physical activation of logic output 1

Variable	Activation delay DO 02
Address	[2794]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Delay before physical activation of logic output 2

Variable	Activation delay DO 03
Address	[2795]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Delay before physical activation of logic output 3

Variable	Activation delay DO 04
Address	[2796]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Delay before physical activation of logic output 4

Variable	Activation delay DO 05
Address	[2797]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Delay before physical activation of logic output 5

Variable	Activation delay DO 06
Address	[2798]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Delay before physical activation of logic output 6

Variable	Enable watchdog
Address	[3569]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	Enable watchdog. Allows the product to restart if the product is unresponisve for at least 10 seconds

Variable	Activation delay relay 1
Address	[8250]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Delay before physical activation of relay 1

Variable	Activation delay relay 2
Address	[8251]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Delay before physical activation of relay 2

I/O CAN bus expansion

Variable	CANopenTM I1
Address	[3232]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I2
Address	[3233]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I3
Address	[3234]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I4
Address	[3235]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I5
Address	[3236]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I6
Address	[3237]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I7
Address	[3238]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I8
Address	[3239]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I9
Address	[3240]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I10
Address	[3241]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I11
Address	[3242]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I12
Address	[3243]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I13
Address	[3244]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I14
Address	[3245]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I15
Address	[3246]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I16
Address	[3247]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I17
Address	[3248]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I18
Address	[3249]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I19
Address	[3250]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I20
Address	[3251]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I21
Address	[3252]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I22
Address	[3253]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I23
Address	[3254]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I24
Address	[3255]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I25
Address	[3256]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I26
Address	[3257]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I27
Address	[3258]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I28
Address	[3259]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I29
Address	[3260]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I30
Address	[3261]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I31
Address	[3262]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I32
Address	[3263]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	Validity on CANopen digital input 1
Address	[3264]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 2
Address	[3265]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 3
Address	[3266]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 4
Address	[3267]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 5
Address	[3268]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 6
Address	[3269]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 7
Address	[3270]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 8
Address	[3271]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 9
Address	[3272]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 10
Address	[3273]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 11
Address	[3274]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 12
Address	[3275]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 13
Address	[3276]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 14
Address	[3277]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 15
Address	[3278]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 16
Address	[3279]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 17
Address	[3280]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 18
Address	[3281]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 19
Address	[3282]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 20
Address	[3283]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 21
Address	[3284]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 22
Address	[3285]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 23
Address	[3286]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 24
Address	[3287]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 25
Address	[3288]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 26
Address	[3289]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 27
Address	[3290]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 28
Address	[3291]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 29
Address	[3292]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 30
Address	[3293]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 31
Address	[3294]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 32
Address	[3295]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	CANopenDir I1
Address	[3296]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I2
Address	[3297]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I3
Address	[3298]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I4
Address	[3299]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I5
Address	[3300]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I6
Address	[3301]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I7
Address	[3302]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I8
Address	[3303]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I9
Address	[3304]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I10
Address	[3305]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I11
Address	[3306]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I12
Address	[3307]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I13
Address	[3308]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I14
Address	[3309]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I15
Address	[3310]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I16
Address	[3311]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I17
Address	[3312]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I18
Address	[3313]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I19
Address	[3314]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I20
Address	[3315]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I21
Address	[3316]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I22
Address	[3317]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I23
Address	[3318]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I24
Address	[3319]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I25
Address	[3320]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I26
Address	[3321]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I27
Address	[3322]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I28
Address	[3323]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I29
Address	[3324]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I30
Address	[3325]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I31
Address	[3326]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I32
Address	[3327]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenModeO1
Address	[3382]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO2
Address	[3383]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO3
Address	[3384]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO4
Address	[3385]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO5
Address	[3386]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO6
Address	[3387]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO7
Address	[3388]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO8
Address	[3389]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO9
Address	[3390]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO10
Address	[3391]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO11
Address	[3392]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO12
Address	[3393]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO13
Address	[3394]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO14
Address	[3395]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO15
Address	[3396]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO16
Address	[3397]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO17
Address	[3398]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO18
Address	[3399]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO19
Address	[3400]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO20
Address	[3401]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO21
Address	[3402]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO22
Address	[3403]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO23
Address	[3404]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO24
Address	[3405]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO25
Address	[3406]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO26
Address	[3407]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO27
Address	[3408]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO28
Address	[3409]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO29
Address	[3410]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO30
Address	[3411]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO31
Address	[3412]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO32
Address	[3413]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopen Offset AI 01
Address	[8350]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Offset for CANopen analog input 1 value

Variable	CANopen Gain AI 01
Address	[8351]
Scale Factor	3
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	10000
Description	Gain for CANopen analog input 1 value

Variable	CANopen Offset AI 02
Address	[8352]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Offset for CANopen analog input 2 value

Variable	CANopen Gain AI 02
Address	[8353]
Scale Factor	3
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	10000
Description	Gain for CANopen analog input 2 value

Variable	CANopen Offset AI 03
Address	[8354]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Offset for CANopen analog input 3 value

Variable	CANopen Gain AI 03
Address	[8355]
Scale Factor	3
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	10000
Description	Gain for CANopen analog input 3 value

Variable	CANopen Offset AI 04
Address	[8356]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Offset for CANopen analog input 4 value

Variable	CANopen Gain AI 04
Address	[8357]
Scale Factor	3
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	10000
Description	Gain for CANopen analog input 4 value

Variable	CANopen Offset AI 05
Address	[8358]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Offset for CANopen analog input 5 value

Variable	CANopen Gain AI 05
Address	[8359]
Scale Factor	3
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	10000
Description	Gain for CANopen analog input 5 value

Variable	CANopen Offset AI 06
Address	[8360]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Offset for CANopen analog input 6 value

Variable	CANopen Gain AI 06
Address	[8361]
Scale Factor	3
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	10000
Description	Gain for CANopen analog input 6 value

Variable	CANopen Offset AI 07
Address	[8362]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Offset for CANopen analog input 7 value

Variable	CANopen Gain AI 07
Address	[8363]
Scale Factor	3
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	10000
Description	Gain for CANopen analog input 7 value

Variable	CANopen Offset AI 08
Address	[8364]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Offset for CANopen analog input 8 value

Variable	CANopen Gain AI 08
Address	[8365]
Scale Factor	3
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	10000
Description	Gain for CANopen analog input 8 value

Variable	CANopen Offset AI 09
Address	[8366]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Offset for CANopen analog input 9 value

Variable	CANopen Gain AI 09
Address	[8367]
Scale Factor	3
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	10000
Description	Gain for CANopen analog input 9 value

Variable	CANopen Offset AI 10
Address	[8368]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Offset for CANopen analog input 10 value

Variable	CANopen Gain AI 10
Address	[8369]
Scale Factor	3
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	10000
Description	Gain for CANopen analog input 10 value

Variable	CANopen Offset AI 11
Address	[8370]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Offset for CANopen analog input 11 value

Variable	CANopen Gain AI 11
Address	[8371]
Scale Factor	3
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	10000
Description	Gain for CANopen analog input 11 value

Variable	CANopen Offset AI 12
Address	[8372]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Offset for CANopen analog input 12 value

Variable	CANopen Gain AI 12
Address	[8373]
Scale Factor	3
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	10000
Description	Gain for CANopen analog input 12 value

Variable	CANopen Offset AI 13
Address	[8374]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Offset for CANopen analog input 13 value

Variable	CANopen Gain AI 13
Address	[8375]
Scale Factor	3
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	10000
Description	Gain for CANopen analog input 13 value

Variable	CANopen Offset AI 14
Address	[8376]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Offset for CANopen analog input 14 value

Variable	CANopen Gain AI 14
Address	[8377]
Scale Factor	3
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	10000
Description	Gain for CANopen analog input 14 value

Variable	CANopen Offset AI 15
Address	[8378]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Offset for CANopen analog input 15 value

Variable	CANopen Gain AI 15
Address	[8379]
Scale Factor	3
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	10000
Description	Gain for CANopen analog input 15 value

Variable	CANopen Offset AI 16
Address	[8380]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Offset for CANopen analog input 16 value

Variable	CANopen Gain AI 16
Address	[8381]
Scale Factor	3
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	10000
Description	Gain for CANopen analog input 16 value

Variable	CANopenTM I33
Address	[8582]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I34
Address	[8583]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I35
Address	[8584]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I36
Address	[8585]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I37
Address	[8586]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I38
Address	[8587]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I39
Address	[8588]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I40
Address	[8589]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I41
Address	[8590]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I42
Address	[8591]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I43
Address	[8592]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I44
Address	[8593]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I45
Address	[8594]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I46
Address	[8595]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I47
Address	[8596]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I48
Address	[8597]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I49
Address	[8598]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I50
Address	[8599]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I51
Address	[8600]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I52
Address	[8601]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I53
Address	[8602]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I54
Address	[8603]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I55
Address	[8604]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I56
Address	[8605]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I57
Address	[8606]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I58
Address	[8607]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I59
Address	[8608]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I60
Address	[8609]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I61
Address	[8610]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I62
Address	[8611]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I63
Address	[8612]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	CANopenTM I64
Address	[8613]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

Variable	Validity on CANopen digital input 33
Address	[8614]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 34
Address	[8615]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 35
Address	[8616]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 36
Address	[8617]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 37
Address	[8618]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 38
Address	[8619]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 39
Address	[8620]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 40
Address	[8621]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 41
Address	[8622]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 42
Address	[8623]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 43
Address	[8624]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 44
Address	[8625]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 45
Address	[8626]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 46
Address	[8627]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 47
Address	[8628]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 48
Address	[8629]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 49
Address	[8630]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 50
Address	[8631]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 51
Address	[8632]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 52
Address	[8633]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 53
Address	[8634]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 54
Address	[8635]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 55
Address	[8636]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 56
Address	[8637]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 57
Address	[8638]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 58
Address	[8639]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 59
Address	[8640]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 60
Address	[8641]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 61
Address	[8642]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 62
Address	[8643]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 63
Address	[8644]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	Validity on CANopen digital input 64
Address	[8645]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

Variable	CANopenDir I33
Address	[8646]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I34
Address	[8647]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I35
Address	[8648]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I36
Address	[8649]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I37
Address	[8650]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I38
Address	[8651]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I39
Address	[8652]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I40
Address	[8653]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I41
Address	[8654]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I42
Address	[8655]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I43
Address	[8656]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I44
Address	[8657]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I45
Address	[8658]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I46
Address	[8659]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I47
Address	[8660]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I48
Address	[8661]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I49
Address	[8662]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I50
Address	[8663]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I51
Address	[8664]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I52
Address	[8665]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I53
Address	[8666]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I54
Address	[8667]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I55
Address	[8668]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I56
Address	[8669]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I57
Address	[8670]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I58
Address	[8671]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I59
Address	[8672]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I60
Address	[8673]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I61
Address	[8674]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I62
Address	[8675]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I63
Address	[8676]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenDir I64
Address	[8677]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

Variable	CANopenModeO33
Address	[8732]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO34
Address	[8733]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO35
Address	[8734]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO36
Address	[8735]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO37
Address	[8736]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO38
Address	[8737]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO39
Address	[8738]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO40
Address	[8739]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO41
Address	[8740]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO42
Address	[8741]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO43
Address	[8742]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO44
Address	[8743]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO45
Address	[8744]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO46
Address	[8745]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO47
Address	[8746]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO48
Address	[8747]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO49
Address	[8748]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO50
Address	[8749]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO51
Address	[8750]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO52
Address	[8751]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO53
Address	[8752]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO54
Address	[8753]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO55
Address	[8754]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO56
Address	[8755]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO57
Address	[8756]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO58
Address	[8757]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO59
Address	[8758]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO60
Address	[8759]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO61
Address	[8760]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO62
Address	[8761]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO63
Address	[8762]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Variable	CANopenModeO64
Address	[8763]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

Timers/meters

Variable	Delay before activation of the protections
Address	[2004]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Waiting time before activating the protections once the engine is ready. By default, the time delay is 10s, i.e. the protections will be activated 10 seconds after the stabilization in voltage of the generator which is the last phase of the engine sequence.

Variable	Test mode duration
Address	[2016]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	This parameter allows you to set the time for which the product will remain in test mode if the limited time test mode has been activated.

Variable	Waiting for deexcitation timer
Address	[2051]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	In the case of operation in static paralleling, if the generator circuit breaker has just opened, and the automatic control system wants to put the generator back on the busbar, either because the generator was in the stop phase and the production request has been reactivated, or because the automated system has opened the circuit breaker and is trying to close it again following the tripping of a protection configured as an electrical fault, then, if there is no voltage on the busbar, the automated system will try to de-energize the alternator for the time configured in this time delay in order to restart a static paralleling sequence. If the alternator fails to de-energize, the automated system will apply the standard sequence, without static paralleling.

Variable	Voltage stabilization timer
Address	[2056]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Time during which the voltage must remain stable between 95 and 105% of nominal before continuing the engine sequence. By default, the voltage must remain stable for 3s between 95 and 105% of nominal. Not to be confused with the maximum time (available in the protection pages) at the end of which the product will stop the engine if the voltage has not stabilized.

Variable	Unexpected stop timer
Address	[2203]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	If the module measures a zero speed and no stop request has been made, the module displays a fault after this delay.

Variable	Load ramp timer
Address	[2853]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	16000
Description	This setpoint adjusts the load ramp timer, for load sharing or mains paralleling mode. In case of a battery it adjusts the discharge ramp timer. 100 % of this timer corresponds to transfer 100% of generator/power plant/ battery nominal kW. For a ramp, to transfer, from 10% to 60% of nominal kW, the time will be 50% of the set timer.

Variable	Unload ramp timer
Address	[2856]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	16000
Description	This setpoint adjusts the unload ramp timer, for load sharing or mains paralleling mode. In case of a battery it adjusts the charge ramp timer. 100 % of this timer corresponds to transfer 100% of generator/power plant nominal kW. For a ramp, to transfer, from 60% to 10% of nominal kW, the time will be 50% of the set timer.

Power Plant

Variable	Number of GENSYS COMPACT PRIME
Address	[2000]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Number of GENSYS COMPACT PRIME on the power plant. This parameter is used for the CAN communication between products. - If product redundancy is enabled, this number must also contain the SLAVE controllers.

Variable	My number
Address	[2001]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	1
Max value	32
Description	This parameter is used to define the product identifier for communication between products. It must be unique for each controller 'type': - Number GENSYS COMPACT from first to last (32 maximum) - Number MASTER COMPACT, MASTER COMPACT 1B and BTB COMPACT from first to last (32 maximum) - Number HYBRID COMPACT from first to last (32 maximum) - Number BAT COMPACT from first to last (max. 32) - If product redundancy is enabled, SLAVE controllers must be numbered separately.

Variable	Connection type
Address	[2003]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Monophase 1: Biphase 180° 2: Triphase 120° (3 or 4 wires) 3: Triphase L1-N-L2 4: Triphase L2-N-L3 5: Triphase L3-N-L1
Description	This parameter is used to select the voltage system that will be applied to all the voltage sources managed by the product. 6 values can be selected: - Single phase: Connection of one active phase and one neutral. Connect the voltages on terminals L1-N. Connect the currents on I1-IN. - Two phase 180°: Connection of 2 active phases (and an optional neutral). Connect the voltages to terminals L1-L3 (and optional N). Connect the currents to I1-I3-IN. If the neutral is not connected to the voltage terminal block, the product will calculate a virtual neutral by itself. - Three-phase 120°: Connection of 3 active phases (and an optional neutral). Connect the voltages on terminals L1-L2-L3 (and optional N). Connect the currents to I1-I2-I3-IN. If the neutral is not connected to the voltage terminal block, the product will calculate a virtual neutral by itself. - Three-phase L1-N-L2: Connection of 3 active phases and a neutral. High leg on L3, neutral between L1 and L2. The neutral must be connected. - Three-phase L2-N-L3: Connection of 3 active phases and a neutral. High leg on L1, neutral between L2 and L3. The neutral must be connected. - Three-phase L3-N-L1: Connection of 3 active phases and a neutral. High leg on L2, neutral between L3 and L1. The neutral must be connected.

Variable	Number of MASTER COMPACT/BTB COMPACT
Address	[2017]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Number of MASTER COMPACT / MASTER COMPACT 1B / BTB (combined) on the power plant. This parameter is used for the CAN communication between products. - If product redundancy is enabled, this number must also contain the SLAVE controllers.

Variable	Segment number
Address	[2020]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	1
Max value	33
Description	Segment number of the unit

Variable	Number of HYBRID COMPACT
Address	[2025]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Number of HYBRID COMPACT on the power plant. This parameter is used for the CAN communication between products. - If product redundancy is enabled, this number must also contain the SLAVE controllers.

Variable	Number of BAT COMPACT
Address	[2030]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	2
Description	Number of BAT COMPACT on the power plant. This parameter is used for the CAN communication between products. - If product redundancy is enabled, this number must also contain the SLAVE controllers.

Variable	Fail to open/close breaker timer
Address	[2304]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	1
Max value	100
Description	Circuit breaker max command delay (timer for discrepancy between command and feedback), identical for both generator circuit breaker and mais circuit breaker, is generating a fault.

Variable	Unexpected close/open breaker timer
Address	[2317]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	100
Description	Timer before taking into account an unexpected change of a breaker feedback input state.

Variable	Start/Stop priority criteria
Address	[2850]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	1: By generator number 2: By running hours 3: By custom configuration 5: By auxiliary hours
Description	This parameter determines which generator will be started or stopped when one of the start/stop conditions is met. 4 choices are possible: - By generator number: In this case, the automated system starts the generator with the lowest number. It stops the generator with the highest number. - By running hours: In this case, the automated system starts the generator with the lowest number of running hours. It stops the generator with the most running hours. - By custom number: Same as 'By generator number', but based on custom numbers. - By auxiliary hours: Same as 'By running hours' but based on auxiliary hours.

Variable	kW threshold to start a generator
Address	[2854]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	This parameter determines the active power threshold (expressed as a % of the nominal value of the generators present on the bus) above which a generator will start in 'Start/Stop load levels' mode.

Variable	kW threshold to stop a generator
Address	[2857]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	This parameter determines the active power threshold (expressed as a % of the nominal value of the generators present on the bus) below which a generator will stop in 'Start/Stop load levels' mode.

Variable	Delay between 2 openings (for manual opening request only)
Address	[2861]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Delay between two load shedding requests if the External non essential trip request digital input is activated

Variable	Action after last opening
Address	[2862]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 6: Fault (soft shutdown) + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Custom number
Address	[2863]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	1
Max value	32
Description	This parameter is used to define the custom number that the automated system will consider for this generator during a start/stop with the criteria 'Custom number'.

Variable	Hour
Address	[2865]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	h
Min value	0
Max value	1000
Description	This parameter is used to determine the maximum difference that the automated system must maintain between the generator with the lowest number of running hours and the generator with the highest number of running hours.

Variable	Load dependent start/stop mode
Address	[2879]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Start/stop load levels 2: Reserve power (%) 3: Reserve power (kW)
Description	This parameter activates the start/stop function according to load variations. 4 choices are possible: - Not used: The function is not activated. - Start/stop thresholds: Generators are started/stopped according to 2 thresholds (a start threshold, a stop threshold), set as a percentage. These thresholds are compared with the actual active power, given as a percentage of nominal. This is the product history mode. - Reserve power (%): Generators are started/stopped according to 2 thresholds (a start threshold, a stop threshold), set as a percentage. The start threshold is compared with the available reserve power, given as a percentage of the nominal value of the generators and batteries producing on the bus. The stop threshold is compared with the reserve power available after a generator has stopped, given as a percentage of the nominal value of the generators and batteries producing on the bus. - Reserve power (kW): Generators are started/stopped according to 2 thresholds (a start threshold, a stop threshold), set in kW. The start threshold is compared with the available reserve power, given in kW. The stop threshold is compared with the reserve power that will be available after a generator has stopped, given in kW. See technical documentation for more information.

Variable	Reserve power (%) threshold to start a generator
Address	[2880]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	1000
Description	This parameter determines the reserve power threshold (expressed as a % of the nominal value of the generators and batteries present on the bus) below which a generator will start in 'Reserve power (%)' mode.

Variable	Reserve power (kW) threshold to start a generator
Address	[2881]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	kW
Min value	0
Max value	32500
Description	This parameter determines the reserve power threshold (expressed in kW) below which a generator will start in 'Reserve power (kW)' mode.

Variable	Enable hours dependant start/stop
Address	[2882]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Running hours 2: Auxiliary hours
Description	This parameter activates hours dependant start/stop to balance running hours. 3 choices are possible: - Not used: The function is not activated. - Running hours: The generators are started/stopped in order to have a maximum difference between the generator with the least operating hours and the one with the most operating hours, corresponding to the value set in parameter 2865 'Hours'. - Auxiliary hours: Same as 'Running hours' mode, but based on auxiliary hours counters which may differ from the running hours counters. Note: To alternate between 2 generators every 16 hours, set a difference of 8 hours.

Variable	Reserve power (%) threshold to stop a generator
Address	[2887]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	1000
Description	This parameter is used to determine the reserve power threshold (expressed as a % of the nominal value of the generators and batteries present on the bus) above which a generator will stop in 'Reserve power (%)' mode. Please note that the stop threshold is compared to the reserve power that will be available after the generator has stopped (and not to the value of the reserve power at the moment when the automated system orders the generator to stop). The aim is to always have an available reserve power greater than the value entered in this parameter. Consequently, the value set for generator stop must be very close to the value set for generator start. The only purpose of the difference between the 2 thresholds is to create a hysteresis to prevent unwanted starts/stops in the event of load variations around the reserve power threshold.

Variable	Reserve power (kW) threshold to stop a generator
Address	[2888]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	kW
Min value	0
Max value	32500
Description	This parameter is used to determine the reserve power threshold (expressed as kW) above which a generator will stop in 'Reserve power (kW)' mode. Please note that the stop threshold is compared to the reserve power that will be available after the generator has stopped (and not to the value of the reserve power at the moment when the automated system orders the generator to stop). The aim is to always have an available reserve power greater than the value entered in this parameter. Consequently, the value set for generator stop must be very close to the value set for generator start. The only purpose of the difference between the 2 thresholds is to create a hysteresis to prevent unwanted starts/stops in the event of load variations around the reserve power threshold.

Variable	Generators start type on powered bus
Address	[2892]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Start all generators 1: Start one by one
Description	When using a generator start/stop function and if no generators are on the bus but there is an other source on the bus, you can either decide to start all the generators at the same time or start them one by one.

Variable	Generators start type on deadbus
Address	[2894]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Start all generators 1: Start one by one
Description	When using a generator start/stop function and if no source is on the bus you can either decide to start all the generators at the same time or start them one by one.

Variable	Slave controller number
Address	[3070]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	1
Max value	32
Description	This number corresponds to the Slave number defined in General > Application.

Variable	Reserve kW threshold 1
Address	[3703]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	If the system's power reserve is lower than the value entered in this parameter, the system will open a load circuit breaker.

Variable	Reserve kW threshold 2
Address	[3704]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	If the system's power reserve is lower than the value entered in this parameter, the system will open a load circuit breaker.

Variable	Load shedding
Address	[3705]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Disabled 1: Enable
Description	This parameter is used to enable the load shedding function, which disconnects a load when the reserve power is too low.

Variable	Timer for threshold 1
Address	[3706]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	This parameter defines the time during which the reserve power must be below threshold n°1 to open the next load circuit breaker.

Variable	Timer for threshold 2
Address	[3707]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	This parameter defines the time during which the reserve power must be below threshold n°2 to open the next load circuit breaker.

Variable	Delay before closing
Address	[3720]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Time before closing the next breaker

Variable	Automatic load reconnection
Address	[3730]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	This parameter determines whether or not loads should close automatically. The automated system will close a load if it considers that the reserve power will be sufficient after closing.

Variable	Maximum kW load 1
Address	[3731]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	kW
Min value	0
Max value	32500
Description	Active power threshold before closing the breaker of the load n°1

Variable	Maximum kW load 2
Address	[3732]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	kW
Min value	0
Max value	32500
Description	Active power threshold before closing the breaker of the load n°2

Variable	Maximum kW load 3
Address	[3733]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	kW
Min value	0
Max value	32500
Description	Active power threshold before closing the breaker of the load n°3

Variable	Maximum kW load 4
Address	[3734]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	kW
Min value	0
Max value	32500
Description	Active power threshold before closing the breaker of the load n°4

Variable	Maximum kW load 5
Address	[3735]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	kW
Min value	0
Max value	32500
Description	Active power threshold before closing the breaker of the load n°5

Variable	Maximum kW load 6
Address	[3736]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	kW
Min value	0
Max value	32500
Description	Active power threshold before closing the breaker of the load n°6

Variable	Maximum kW load 7
Address	[3737]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	kW
Min value	0
Max value	32500
Description	Active power threshold before closing the breaker of the load n°7

Variable	Maximum kW load 8
Address	[3738]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	kW
Min value	0
Max value	32500
Description	Active power threshold before closing the breaker of the load n°8

Variable	Maximum kW load 9
Address	[3739]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	kW
Min value	0
Max value	32500
Description	Active power threshold before closing the breaker of the load n°9

Variable	Maximum kW load 10
Address	[3740]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	kW
Min value	0
Max value	32500
Description	Active power threshold before closing the breaker of the load n°10

Variable	Number of load
Address	[3741]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	1
Max value	10
Description	This parameter allows you to define the number of load in your installation. It enables the automation system to know the number of the first load to open before starting to open the subsequent loads with smaller numbers. The smaller the number of a load the higher its priority and the later it will be opened.

Generator protections

Variable	Timer Min Max Speed output
Address	[2389]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Control Min Max Speed output
Address	[2390]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Timer Min Max AVR output
Address	[2391]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Control Min Max AVR output
Address	[2392]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Out of speed range timer
Address	[2393]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Out of speed range control
Address	[2394]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Out of voltage range timer
Address	[2395]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Out of voltage range control
Address	[2396]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Mismatch rotophases protection control
Address	[2397]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Over frequency threshold
Address	[2400]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Over frequency timer
Address	[2401]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Over frequency control
Address	[2402]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Under frequency threshold
Address	[2403]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Under frequency timer
Address	[2404]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Under frequency control
Address	[2405]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Over voltage threshold
Address	[2406]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Over voltage timer
Address	[2407]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Over voltage control
Address	[2408]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Under voltage threshold
Address	[2409]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Under voltage timer
Address	[2410]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Under voltage control
Address	[2411]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Minimum kW threshold
Address	[2412]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Minimum kW timer
Address	[2413]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Minimum kW control
Address	[2414]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Maximum kW threshold
Address	[2415]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Maximum kW timer
Address	[2416]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Maximum kW control
Address	[2417]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Reverse kW threshold
Address	[2418]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	1
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Reverse kW timer
Address	[2419]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Reverse kW control
Address	[2420]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Minimum kVAR threshold
Address	[2421]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Minimum kVAR timer
Address	[2422]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Minimum kVAR control
Address	[2423]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Maximum kVAR threshold
Address	[2424]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Maximum kVAR timer
Address	[2425]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Maximum kVAR control
Address	[2426]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Reverse kVAR threshold
Address	[2427]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	1
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Reverse kVAR timer
Address	[2428]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Reverse kVAR control
Address	[2429]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Over current threshold
Address	[2430]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	A
Min value	0
Max value	65535
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Over current timer
Address	[2431]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Over current control
Address	[2432]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Neutral current threshold
Address	[2433]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	A
Min value	0
Max value	65535
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Neutral current timer
Address	[2434]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Neutral current control
Address	[2435]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Over frequency threshold 2
Address	[2436]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Over frequency timer 2
Address	[2437]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Over frequency control 2
Address	[2438]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Under frequency threshold 2
Address	[2439]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Under frequency timer 2
Address	[2440]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Under frequency control 2
Address	[2441]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Over voltage threshold 2
Address	[2442]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Over voltage timer 2
Address	[2443]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Over voltage control 2
Address	[2444]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Under voltage threshold 2
Address	[2445]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Under voltage timer 2
Address	[2446]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Under voltage control 2
Address	[2447]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Minimum kW threshold 2
Address	[2448]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Minimum kW timer 2
Address	[2449]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Minimum kW control 2
Address	[2450]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Maximum kW threshold 2
Address	[2451]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Maximum kW timer 2
Address	[2452]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Maximum kW control 2
Address	[2453]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Reverse kW threshold 2
Address	[2454]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	1
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Reverse kW timer 2
Address	[2455]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Reverse kW control 2
Address	[2456]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Minimum kVAR threshold 2
Address	[2457]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Minimum kVAR timer 2
Address	[2458]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Minimum kVAR control 2
Address	[2459]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Maximum kVAR threshold 2
Address	[2460]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Maximum kVAR timer 2
Address	[2461]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Maximum kVAR control 2
Address	[2462]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Reverse kVAR threshold 2
Address	[2463]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	1
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Reverse kVAR timer 2
Address	[2464]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Reverse kVAR control 2
Address	[2465]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Over current threshold 2
Address	[2466]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	A
Min value	0
Max value	65535
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Over current timer 2
Address	[2467]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Over current control 2
Address	[2468]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Neutral current threshold 2
Address	[2469]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	A
Min value	0
Max value	65535
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Neutral current timer 2
Address	[2470]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Neutral current control 2
Address	[2471]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Short Circuit K constant characteristic
Address	[2472]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Generator Current Short Circuit Protection : K constant characteristic

Variable	Short Circuit C constant characteristic
Address	[2473]
Scale Factor	3
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Generator Current Short Circuit Protection : C constant characteristic

Variable	Short Circuit Alpha constant characteristic
Address	[2474]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	65535
Description	Generator Current Short Circuit Protection : Alpha constant characteristic

Variable	Short Circuit TMS (Time Multiplier Setting)
Address	[2475]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	1
Max value	10
Description	Generator Current Short Circuit Protection : TMS (Time Multiplier Setting) constant characteristic

Variable	Short Circuit Is constant
Address	[2476]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	1000
Description	Generator Current Short Circuit Protection : IS constant characteristic

Variable	Generator Short Circuit Control
Address	[2477]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Horn timer
Address	[2478]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Duration of activation of the horn which is activated each time an alarm or fault occurs on the product. The value 0 means that the horn will sound until the alarms/faults on the product are manually acknowledged.

Variable	Earth fault threshold
Address	[2479]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	A
Min value	0
Max value	65535
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Earth fault timer
Address	[2480]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	100
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Earth fault control
Address	[2481]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Earth fault threshold 2
Address	[2482]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	A
Min value	0
Max value	65535
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Earth fault timer 2
Address	[2483]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	100
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Earth fault control 2
Address	[2484]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Earth Current CT ratio
Address	[2485]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	1
Max value	32500
Description	Earth Current Transformers Ratio. CT must be connected to J5 for earth fault measurement.

Variable	Voltage unbalance threshold
Address	[2486]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Voltage unbalance timer
Address	[2487]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Voltage unbalance control
Address	[2488]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Voltage unbalance threshold 2
Address	[2489]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Voltage unbalance timer 2
Address	[2490]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Voltage unbalance control 2
Address	[2491]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Current unbalance threshold
Address	[2492]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Current unbalance timer
Address	[2493]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Current unbalance control
Address	[2494]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Current unbalance threshold 2
Address	[2495]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Current unbalance timer 2
Address	[2496]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Current unbalance control 2
Address	[2497]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Curve type
Address	[2498]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: IEC Inverse 1: IEC Very Inverse 2: IEC Extremely Inverse 3: IEEE Moderately Inverse 4: IEEE Very Inverse 5: IEEE Extremely Inverse 6: Custom
Description	Different standard short circuit protection curves can be chosen: - 0: IEC Inverse - 1: IEC Very Inverse - 2: IEC Extremely Inverse - 3: IEEE Moderately Inverse - 4: IEEE Very Inverse - 5: IEEE Extremely Inverse - 6: Custom Note: The short circuit protection parameters can only be modified if 'Custom' is selected.

Variable	Threshold uneven kW
Address	[3708]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	1000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Timer uneven kW
Address	[3709]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Control uneven kW
Address	[3710]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Threshold uneven kVAR
Address	[3711]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	1000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Timer uneven kVAR
Address	[3712]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Control uneven kVAR
Address	[3713]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Rotophase activation direction (0 = Indirect, 1 = Direct)
Address	[8500]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Indirect 1: Direct
Description	This setpoint define wich direction of rotophase will activate rotophase protection. If the setpoint is on direct then the action of variables 8500 will activate if voltage phases are plugged on a direct direction. If the setpoint is on indirect then the action of variables 8500 will activate if voltage phases are plugged on an indirect direction.

Variable	Rotophase protection control
Address	[8501]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Bus protections

Variable	Over frequency threshold
Address	[2500]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Over frequency timer
Address	[2501]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Over frequency control
Address	[2502]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Under frequency threshold
Address	[2503]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Under frequency timer
Address	[2504]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Under frequency control
Address	[2505]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Over voltage threshold
Address	[2506]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Over voltage timer
Address	[2507]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Over voltage control
Address	[2508]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Under voltage threshold
Address	[2509]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Under voltage timer
Address	[2510]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Under voltage control
Address	[2511]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Over frequency threshold 2
Address	[2530]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Over frequency timer 2
Address	[2531]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Over frequency control 2
Address	[2532]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Under frequency threshold 2
Address	[2533]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Under frequency timer 2
Address	[2534]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Under frequency control 2
Address	[2535]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Over voltage threshold 2
Address	[2536]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Over voltage timer 2
Address	[2537]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Over voltage control 2
Address	[2538]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Under voltage threshold 2
Address	[2539]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Under voltage timer 2
Address	[2540]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Under voltage control 2
Address	[2541]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Voltage unbalance threshold
Address	[2565]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Voltage unbalance timer
Address	[2566]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Voltage unbalance control
Address	[2567]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 9: Mains electrical fault
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Voltage unbalance threshold 2
Address	[2568]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Voltage unbalance timer 2
Address	[2569]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Voltage unbalance control 2
Address	[2570]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 9: Mains electrical fault
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Bus Bar measure error inhibition
Address	[2571]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	Enable/Disable "Bus bars measure error" Alarm : This alarm is active when any genset of the power plant is operating, circuit breaker closed, and there is no voltage on Bus Bar measurement

Variable	Rotophase activation direction (0 = Indirect, 1 = Direct)
Address	[2584]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Indirect 1: Direct
Description	This setpoint define wich direction of rotophase will activate rotophase protection If the setpoint is on direct then the action of variables 2584 will activate if voltage phases are plugged on a direct direction. If the setpoint is on indirect then the action of variables 2584 will activate if voltage phases are plugged on an indirect direction.

Variable	Rotophase protection control
Address	[2585]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 9: Mains electrical fault
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Engine protections

Variable	Over speed threshold
Address	[2350]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Over speed timer
Address	[2351]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Over speed control
Address	[2352]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Under speed threshold
Address	[2353]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Under speed timer
Address	[2354]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Under speed control
Address	[2355]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Min. voltage battery threshold
Address	[2356]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	V
Min value	0
Max value	350
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Min. voltage battery timer
Address	[2357]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Min. voltage battery control
Address	[2358]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Max. voltage battery threshold
Address	[2359]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	V
Min value	0
Max value	350
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Max. voltage battery timer
Address	[2360]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Max. voltage battery control
Address	[2361]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Oil pressure threshold
Address	[2362]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	bar
Min value	0
Max value	65535
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Oil pressure timer
Address	[2363]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Oil pressure control
Address	[2364]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Water temperature threshold
Address	[2365]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	°C
Min value	-32768
Max value	32767
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Water temperature timer
Address	[2366]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Water temperature control
Address	[2367]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Over speed threshold 2
Address	[2368]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Over speed timer 2
Address	[2369]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Over speed control 2
Address	[2370]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Under speed threshold 2
Address	[2371]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Under speed timer 2
Address	[2372]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Under speed control 2
Address	[2373]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Min. voltage battery threshold 2
Address	[2374]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	V
Min value	0
Max value	350
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Min. voltage battery timer 2
Address	[2375]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Min. voltage battery control 2
Address	[2376]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Max. voltage battery threshold 2
Address	[2377]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	V
Min value	0
Max value	350
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Max. voltage battery timer 2
Address	[2378]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Max. voltage battery control 2
Address	[2379]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Oil pressure threshold 2
Address	[2380]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	bar
Min value	0
Max value	65535
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Oil pressure timer 2
Address	[2381]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Oil pressure control 2
Address	[2382]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Water temperature threshold 2
Address	[2383]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	°C
Min value	-32768
Max value	32767
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Water temperature timer 2
Address	[2384]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer defining how long the value should exceed the treshold before triggering the control associated to this protection.

Variable	Water temperature control 2
Address	[2385]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Low threshold boost battery
Address	[2386]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	V
Min value	0
Max value	350
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	High threshold boost battery
Address	[2387]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	V
Min value	0
Max value	350
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Control boost battery
Address	[2388]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	This parameter enables the Battery boost function. When it is assigned to a digital output (variable 4709): - The output turns ON if the voltage falls below the low threshold (variable 2386). - The output turns OFF if the voltage rises above the high threshold (variable 2387).

Variable	Analog input 1 threshold
Address	[2600]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	bar
Min value	-32768
Max value	32767
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Analog input 1 timer
Address	[2601]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Analog input 1 control
Address	[2602]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Analog input 1 threshold 2
Address	[2603]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	bar
Min value	-32768
Max value	32767
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Analog input 1 timer 2
Address	[2604]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Analog input 1 control 2
Address	[2605]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Direction analog input 1 protection
Address	[2606]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Minimum 1: Maximum
Description	This setpoint define if the both threshold level for analog input 1 are minimum or maximum limit. If the setpoint is on "Minimum" then the action of vaiables 2602 and 2605 will activate from thresholds level set and below. If the setpoint is on "Maximum" then the action of vaiables 2602 and 2605 will activate from thresholds level set and above.

Variable	Analog input 2 threshold
Address	[2608]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	°C
Min value	-32768
Max value	32767
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Analog input 2 timer
Address	[2609]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Analog input 2 control
Address	[2610]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Analog input 2 threshold 2
Address	[2611]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	°C
Min value	-32768
Max value	32767
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Analog input 2 timer 2
Address	[2612]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Analog input 2 control 2
Address	[2613]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Direction analog input 2 protection
Address	[2614]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Minimum 1: Maximum
Description	This setpoint define if the both threshold level for analog input 2 are minimum or maximum limit. If the setpoint is on "Minimum" then the action of vaiables 2610 and 2613 will activate from thresholds level set and below. If the setpoint is on "Maximum" then the action of vaiables 2610 and 2613 will activate from thresholds level set and above.

Variable	Analog input 3 threshold
Address	[2616]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Analog input 3 timer
Address	[2617]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Analog input 3 control
Address	[2618]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Analog input 3 threshold 2
Address	[2619]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Analog input 3 timer 2
Address	[2620]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Analog input 3 control 2
Address	[2621]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help 7: Generator electrical fault + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Direction analog input 3 protection
Address	[2622]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Minimum 1: Maximum
Description	This setpoint define if the both threshold level for analog input 3 are minimum or maximum limit. If the setpoint is on "Minimum" then the action of vaiables 2618 and 2621 will activate from thresholds level set and below. If the setpoint is on "Maximum" then the action of vaiables 2618 and 2621 will activate from thresholds level set and above.

Variable	Control on Malfunction Indicator Lamp
Address	[3110]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Control on Protection Lamp
Address	[3111]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Control on Amber Warning Lamp
Address	[3112]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Control on Red Stop Lamp
Address	[3113]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Control on Combined Alarm Yellow
Address	[3121]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Control on Combined Alarm Red
Address	[3122]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Control on HEST Lamp
Address	[3127]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation

Variable	Control on SCR Lamp
Address	[3128]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation

Variable	Control on DEF Lamp
Address	[3129]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation

Variable	Control on Inhibited Lamp
Address	[3130]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation

Variable	Control on Wait to start Lamp
Address	[3131]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation

Variable	Control on DPF Lamp
Address	[3132]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 6: Fault (soft shutdown) + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation

Variable	Timer before Malfunction Lamp Error
Address	[3133]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Timer before triggering the J1939 malfunction lamp error

Variable	Timer before Protection Lamp Error
Address	[3134]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Timer before triggering the J1939 protection lamp error

Variable	Timer before Amber Warning Lamp Error
Address	[3135]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Timer before triggering the J1939 Amber warning lamp error

Variable	Timer before Red stop Lamp Error
Address	[3136]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Timer before triggering the J1939 Red stop lamp error

Variable	Timer before Wait To Start Lamp Error
Address	[3137]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Timer before triggering the J1939 WaitToStart lamp error

Variable	Timer before DPF Lamp Error
Address	[3138]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Timer before triggering the J1939 DPF lamp error

Variable	Timer before HEST Lamp Error
Address	[3139]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Timer before triggering the J1939 HEST lamp error

Variable	Timer before SCR Lamp Error
Address	[3140]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Timer before triggering the J1939 SCR lamp error

Variable	Timer before DEF Lamp Error
Address	[3141]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Timer before triggering the J1939 DEF lamp error

Variable	Timer before Inhibited Lamp Error
Address	[3142]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Timer before triggering the J1939 inhibited lamp error

Communication

Variable	Inhibition remote start from CAN
Address	[2018]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	Allows a unit to ignore a remote start request coming from another product connected via CAN

Variable	Starting on loss of communication with MASTER COMPACT
Address	[2019]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	This parameter only affects the product in applications with one or more MASTER COMPACT / MASTER COMPACT 1B. It determines the behaviour of the product when the MASTER COMPACT / MASTER COMPACT 1B no longer sends a frame on the CAN bus (power failure or other problems). For applications with BTB COMPACT, the product will only act according to this parameter if the MASTER COMPACT / MASTER COMPACT 1B that no longer sends a frame is in the same segment.

Variable	Starting on loss of communication with BAT COMPACT
Address	[2046]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	This parameter only affects the product in applications with one or more BAT COMPACT. It determines the behaviour of the product when the BAT COMPACT no longer sends a frame on the CAN bus (power failure or other problems). For applications with BTB COMPACT the product will only act according to this parameter if the BAT COMPACT is within the same segment.

Variable	Control on Modbus server timeouts
Address	[3030]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 6: Fault (soft shutdown) + Help
Description	Control on TCP connection loss or frame timeout with Modbus server

Variable	Enable connection to Modbus server
Address	[3031]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	Enable connection to a Modbus server for custom read/write requests

Variable	Modbus server frame timeout
Address	[3032]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Timeout in ms for no response to a frame emitted from the Modbus server

Variable	CAN 1 baud rate
Address	[3050]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	125: 125 kBit/s 250: 250 kBit/s 500: 500 kBit/s 1000: 1000 kBit/s
Description	CAN bus speed 1: - Used for communication between products with the proprietary CRE protocol (Only for communicating products). - Used for the connection of inputs/outputs with the CANopen protocol when the MTU MDEC protocol is activated on CAN 2 (Only for products with engine control). Higher speed results in a reduction of the maximum bus distance.

Variable	CAN 2 baud rate
Address	[3051]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	125: 125 kBit/s 250: 250 kBit/s 500: 500 kBit/s 1000: 1000 kBit/s
Description	CAN bus speed 2: - Used for connecting inputs/outputs with the CANopen protocol (Except when using the MDEC protocol, in which case the CANopen inputs/outputs must be connected to CAN 1). If the J1939 protocol is disabled, this parameter determines the communication speed of the CAN 2 bus. - Used for the communication between the product and the ECU with the J1939 protocol (Only for products with engine control). When the J1939 protocol is enabled, the CAN 2 bus speed is forced to 250kb/s. This parameter will not impact the bus speed. - Used for the communication between the product and the ECU with the MDEC protocol (Only for products with engine control). When the MDEC protocol is enabled, the CAN 2 bus speed is forced to 125kb/s. This parameter will not impact the bus speed. A higher speed results in a reduction of the maximum bus distance.

Variable	Control on controllers communication fault
Address	[3052]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 8: Droop Hz/V + Alarm 10: Droop Hz only + Alarm
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Control on missing GENSYS COMPACT PRIME on CAN bus
Address	[3054]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 8: Droop Hz/V + Alarm
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Control on missing MASTER COMPACT/BTB COMPACT on CAN bus
Address	[3057]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 8: Droop Hz/V + Alarm
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Control on ECU error
Address	[3058]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 6: Fault (soft shutdown) + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Control on CANopen error
Address	[3059]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 6: Fault (soft shutdown) + Help
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Control on missing HYBRID COMPACT on CAN bus
Address	[3060]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 8: Droop Hz/V + Alarm 10: Droop Hz only + Alarm
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Control on missing BAT COMPACT on CAN bus
Address	[3061]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 8: Droop Hz/V + Alarm 10: Droop Hz only + Alarm
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Timer before ECU error
Address	[3116]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	Timer before triggering the CAN error related to the communication between the controller and the ECU/ECM.

Variable	Enable J1939 sniffer
Address	[3119]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Off 1: All received frames 2: Frames from ECU address only 3: All emited frames 4: All frames
Description	This parameter enables the J1939 frame sniffer. 5 choices are possible: - Off : No frame is recorded - All received frames : Only the frames received by the module are recorded. - Frames of the ECU address only : Only the frames whose identifier is the one indicated in the ECU ID parameter are recorded. - All transmitted frames: Only the frames transmitted by the module are recorded. - All the frames : All the frames are recorded, those sent by the module, those received by the module. The recording starts as soon as the selection is different from Off. Switch the parameter to Off to stop recording.

Variable	TSC1 Message counter
Address	[3123]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	This parameter is used to integrate the message counter into the TSC1 speed frame.

Variable	TSC1 Message checksum
Address	[3124]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	This parameter is used to integrate the message checksum into the TSC1 speed frame.

Variable	CANopen error timer
Address	[3152]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	65535
Description	CANopen error timer

Saved user variables

Variable	Saved var. 1 (Customisable)
Address	[8000]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 2 (Customisable)
Address	[8001]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 3 (Customisable)
Address	[8002]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 4 (Customisable)
Address	[8003]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 5 (Customisable)
Address	[8004]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 6 (Customisable)
Address	[8005]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 7 (Customisable)
Address	[8006]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 8 (Customisable)
Address	[8007]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 9 (Customisable)
Address	[8008]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 10 (Customisable)
Address	[8009]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 11 (Customisable)
Address	[8010]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 12 (Customisable)
Address	[8011]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 13 (Customisable)
Address	[8012]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 14 (Customisable)
Address	[8013]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 15 (Customisable)
Address	[8014]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 16 (Customisable)
Address	[8015]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 17 (Customisable)
Address	[8016]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 18 (Customisable)
Address	[8017]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 19 (Customisable)
Address	[8018]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 20 (Customisable)
Address	[8019]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 21 (Customisable)
Address	[8020]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 22 (Customisable)
Address	[8021]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 23 (Customisable)
Address	[8022]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 24 (Customisable)
Address	[8023]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 25 (Customisable)
Address	[8024]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 26 (Customisable)
Address	[8025]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 27 (Customisable)
Address	[8026]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 28 (Customisable)
Address	[8027]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 29 (Customisable)
Address	[8028]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 30 (Customisable)
Address	[8029]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 31 (Customisable)
Address	[8030]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 32 (Customisable)
Address	[8031]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 33 (Customisable)
Address	[8032]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 34 (Customisable)
Address	[8033]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 35 (Customisable)
Address	[8034]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 36 (Customisable)
Address	[8035]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 37 (Customisable)
Address	[8036]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 38 (Customisable)
Address	[8037]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 39 (Customisable)
Address	[8038]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 40 (Customisable)
Address	[8039]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 41 (Customisable)
Address	[8040]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 42 (Customisable)
Address	[8041]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 43 (Customisable)
Address	[8042]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 44 (Customisable)
Address	[8043]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 45 (Customisable)
Address	[8044]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 46 (Customisable)
Address	[8045]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 47 (Customisable)
Address	[8046]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 48 (Customisable)
Address	[8047]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 49 (Customisable)
Address	[8048]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Saved var. 50 (Customisable)
Address	[8049]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Unsaved user variables

Variable	Unsaved var.1 (Customisable)
Address	[8050]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.2 (Customisable)
Address	[8051]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.3 (Customisable)
Address	[8052]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.4 (Customisable)
Address	[8053]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.5 (Customisable)
Address	[8054]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.6 (Customisable)
Address	[8055]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.7 (Customisable)
Address	[8056]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.8 (Customisable)
Address	[8057]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.9 (Customisable)
Address	[8058]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.10 (Customisable)
Address	[8059]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.11 (Customisable)
Address	[8060]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.12 (Customisable)
Address	[8061]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.13 (Customisable)
Address	[8062]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.14 (Customisable)
Address	[8063]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.15 (Customisable)
Address	[8064]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.16 (Customisable)
Address	[8065]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.17 (Customisable)
Address	[8066]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.18 (Customisable)
Address	[8067]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.19 (Customisable)
Address	[8068]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.20 (Customisable)
Address	[8069]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.21 (Customisable)
Address	[8070]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.22 (Customisable)
Address	[8071]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.23 (Customisable)
Address	[8072]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.24 (Customisable)
Address	[8073]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.25 (Customisable)
Address	[8074]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.26 (Customisable)
Address	[8075]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.27 (Customisable)
Address	[8076]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.28 (Customisable)
Address	[8077]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.29 (Customisable)
Address	[8078]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.30 (Customisable)
Address	[8079]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.31 (Customisable)
Address	[8080]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.32 (Customisable)
Address	[8081]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.33 (Customisable)
Address	[8082]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.34 (Customisable)
Address	[8083]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.35 (Customisable)
Address	[8084]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.36 (Customisable)
Address	[8085]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.37 (Customisable)
Address	[8086]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.38 (Customisable)
Address	[8087]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.39 (Customisable)
Address	[8088]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.40 (Customisable)
Address	[8089]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.41 (Customisable)
Address	[8090]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.42 (Customisable)
Address	[8091]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.43 (Customisable)
Address	[8092]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.44 (Customisable)
Address	[8093]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.45 (Customisable)
Address	[8094]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.46 (Customisable)
Address	[8095]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.47 (Customisable)
Address	[8096]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.48 (Customisable)
Address	[8097]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.49 (Customisable)
Address	[8098]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

Variable	Unsaved var.50 (Customisable)
Address	[8099]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Can be used to store data (via Modbus or J1939), to store temporary calculations (via Easyflex), to trigger alarms or faults, etc...

System

Variable	Power on mode
Address	[2012]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Manual 1: Test 2: Auto
Description	This parameter is used to select the mode of the product when the power supply is applied. 3 values can be used : - Manual : The product will switch-on on Manual mode - Test : The product will switch-on on Test mode - Auto : The product will switch-on on Auto mode

Variable	Test mode operation
Address	[2014]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: On load 1: Off load 2: On load with timer
Description	This parameter is used to select the actions for test mode on the product. 3 values can be used : - On load : The generator(s) start(s) and the breaker(s) close(s) to take the load. - Off load : The generator(s) start(s) but the breaker does not close. - On load with timer :The generator start, run without load during a configurable timer, and the breaker closes.

Variable	Limited time test mode
Address	[2015]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	This parameter is used to activate an operation delay in test mode. During this timer, the test mode is activated. At the end of this timer, the product will be forced on auto mode and the generator will stop if there is no active remote start.

Variable	Synchronization & Load sharing only
Address	[2024]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	This parameter determines if the product should process only synchronization and kW/kVAR management. 2 values can be selected: - No: Standard operation of the product with management of the faults when the feedback of the circuit breakers is not in conformity with the orders of the product, management of the engine. - Yes: Circuit-breaker faults are not managed, which leaves more flexibility in sequences when circuit-breaker close/open commands are given by a PLC. The engine sequence is not managed. The product will start the synchronization sequence if voltage and frequency are between 95% and 105% of nominal and a digital input configured as 'Remote start on load' is activated. The kW management function is activated as soon as a digital input configured as 'Generator breaker feedback' is activated. In this operating mode, the product can only be used in automatic mode.

Variable	Static paralleling
Address	[2050]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	This parameter is used to enable static paralleling. 2 values can be selected: - No: Standard operation 1/ Generator starts with its excitation. 2/ Breaker closes with or without synchronization depending of the voltage on the busbar. - Yes: Static paralleling is activated 1/ Breaker(s) close(s). 2/ Generator(s) start(s) without excitation. 3/ Excitation is activated (on all generators at the same time in case of a powerplant).

Variable	Excitation voltage threshold
Address	[2054]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	1000
Description	Percentage of voltage to allow closing breaker in static paralleling. For a PRIME module, the threshold need to be the same with all module PRIME.

Variable	Master controller number
Address	[3064]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	1
Max value	32
Description	This number corresponds to the Master number defined in General > Application.

Variable	Controller role
Address	[3065]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Master 1: Slave
Description	This parameter defines whether the current controller is to be considered as the Master or the Slave of the redundant installation.

Variable	Enable redundancy
Address	[3069]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	This parameter enables redundancy. You must also define the role of each controller.

Variable	Screensaver timeout
Address	[3551]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	min
Min value	0
Max value	120
Description	Timeout Screen saver (0=infini)

Variable	Backlight timeout
Address	[3552]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	min
Min value	0
Max value	120
Description	Timeout Backlight (0=infini)

Variable	LCD screen contrast
Address	[3554]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	100
Description	LCD contrast intensity

Variable	LCD screen backlight
Address	[3555]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	%
Min value	0
Max value	100
Description	LCD backlight intensity

Variable	Variable 1 to log
Address	[3600]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	10299
Description	Logger of the variable to archive

Variable	Variable 2 to log
Address	[3601]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	10299
Description	Logger of the variable to archive

Variable	Variable 3 to log
Address	[3602]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	10299
Description	Logger of the variable to archive

Variable	Variable 4 to log
Address	[3603]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	10299
Description	Logger of the variable to archive

Variable	Variable 5 to log
Address	[3604]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	10299
Description	Logger of the variable to archive

Variable	Variable 6 to log
Address	[3605]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	10299
Description	Logger of the variable to archive

Variable	Variable 7 to log
Address	[3606]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	10299
Description	Logger of the variable to archive

Variable	Variable 8 to log
Address	[3607]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	10299
Description	Logger of the variable to archive

Variable	Variable 9 to log
Address	[3608]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	10299
Description	Logger of the variable to archive

Variable	Variable 10 to log
Address	[3609]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	10299
Description	Logger of the variable to archive

Variable	Activation
Address	[3610]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Off 1: Always ON 2: Post starting 3: Stabilized
Description	Archiving mode OFF = NEVER / ALWAYS / POST STARTING / STABILIZED, event archiving can be activated depending on engine status. Warning: erase will delete all faults, alarms and archived data.

Variable	Erase logger
Address	[3611]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Erase log (Automatically set to 0 after erase).

Variable	Logging period variable 1
Address	[3612]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	1
Max value	9999
Description	Time in second of interval between each archiving

Variable	Logging period variable 2
Address	[3613]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	1
Max value	9999
Description	Time in second of interval between each archiving

Variable	Logging period variable 3
Address	[3614]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	1
Max value	9999
Description	Time in second of interval between each archiving

Variable	Logging period variable 4
Address	[3615]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	1
Max value	9999
Description	Time in second of interval between each archiving

Variable	Logging period variable 5
Address	[3616]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	1
Max value	9999
Description	Time in second of interval between each archiving

Variable	Logging period variable 6
Address	[3617]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	1
Max value	9999
Description	Time in second of interval between each archiving

Variable	Logging period variable 7
Address	[3618]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	1
Max value	9999
Description	Time in second of interval between each archiving

Variable	Logging period variable 8
Address	[3619]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	1
Max value	9999
Description	Time in second of interval between each archiving

Variable	Logging period variable 9
Address	[3620]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	1
Max value	9999
Description	Time in second of interval between each archiving

Variable	Logging period variable 10
Address	[3621]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	1
Max value	9999
Description	Time in second of interval between each archiving

Variable	Log variable 1 on
Address	[3622]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Value change 1: Interval
Description	A variable can be logged in two different ways: - Interval: The variable will be logged at specific intervals, defined by the user ([3612]) - Value change: The variable will be logged each time the value of the variable has been changed

Variable	Log variable 2 on
Address	[3623]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Value change 1: Interval
Description	A variable can be logged in two different ways: - Interval: The variable will be logged at a periodic interval, defined by the user ([3613]) - Value change: The variable will be logged each time the value of the variable has been changed

Variable	Log variable 3 on
Address	[3624]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Value change 1: Interval
Description	A variable can be logged in two different ways: - Interval: The variable will be logged at a periodic interval, defined by the user ([3614]) - Value change: The variable will be logged each time the value of the variable has been changed

Variable	Log variable 4 on
Address	[3625]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Value change 1: Interval
Description	A variable can be logged in two different ways: - Interval: The variable will be logged at a periodic interval, defined by the user ([3615]) - Value change: The variable will be logged each time the value of the variable has been changed

Variable	Log variable 5 on
Address	[3626]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Value change 1: Interval
Description	A variable can be logged in two different ways: - Interval: The variable will be logged at a periodic interval, defined by the user ([3616]) - Value change: The variable will be logged each time the value of the variable has been changed

Variable	Log variable 6 on
Address	[3627]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Value change 1: Interval
Description	A variable can be logged in two different ways: - Interval: The variable will be logged at a periodic interval, defined by the user ([3617]) - Value change: The variable will be logged each time the value of the variable has been changed

Variable	Log variable 7 on
Address	[3628]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Value change 1: Interval
Description	A variable can be logged in two different ways: - Interval: The variable will be logged at a periodic interval, defined by the user ([3618]) - Value change: The variable will be logged each time the value of the variable has been changed

Variable	Log variable 8 on
Address	[3629]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Value change 1: Interval
Description	A variable can be logged in two different ways: - Interval: The variable will be logged at a periodic interval, defined by the user ([3619]) - Value change: The variable will be logged each time the value of the variable has been changed

Variable	Log variable 9 on
Address	[3630]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Value change 1: Interval
Description	A variable can be logged in two different ways: - Interval: The variable will be logged at a periodic interval, defined by the user ([3620]) - Value change: The variable will be logged each time the value of the variable has been changed

Variable	Log variable 10 on
Address	[3631]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Value change 1: Interval
Description	A variable can be logged in two different ways: - Interval: The variable will be logged at a periodic interval, defined by the user ([3621]) - Value change: The variable will be logged each time the value of the variable has been changed

Variable	Record power up
Address	[8300]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	Records controller power up event

Variable	Record engine status (Start/Stop)
Address	[8301]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	Records engine start and stop events

Variable	Record circuit breaker status (Open/Closed)
Address	[8303]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	Records breaker closing and opening events

Variable	Record operating mode
Address	[8304]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	Records controller mode switching events (automatic, test, manual)

Hysteresis

Variable	Enable Hysteresis 1
Address	[2657]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	Enable hysteresis on analog input 1 with thresholds E2660 (Low Level) & E2663 (High Level)

Variable	Enable Hysteresis 2
Address	[2658]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	Enable hysteresis on analog input 2 with thresholds E2661 (Low Level) & E2664 (High Level)

Variable	Enable Hysteresis 3
Address	[2659]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	Enable hysteresis on analog input 3 with thresholds E2662 (Low Level) & E2665 (High Level)

Variable	Low level threshold
Address	[2660]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	bar
Min value	-32768
Max value	32767
Description	Low level threshold for digital output activation on hysteresis 1

Variable	Low level threshold
Address	[2661]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	°C
Min value	-32768
Max value	32767
Description	Low level threshold for digital output activation on hysteresis 2

Variable	Low level threshold
Address	[2662]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	Low level threshold for digital output activation on hysteresis 3

Variable	High level threshold
Address	[2663]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	bar
Min value	-32768
Max value	32767
Description	High level threshold for digital output activation on hysteresis 1

Variable	High level threshold
Address	[2664]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	°C
Min value	-32768
Max value	32767
Description	High level threshold for digital output activation on hysteresis 2

Variable	High level threshold
Address	[2665]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	-32768
Max value	32767
Description	High level threshold for digital output activation on hysteresis 3

Variable	Timer on low level threshold
Address	[2666]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer before set/reset digital output on hysteresis low threshold 1

Variable	Timer on low level threshold
Address	[2667]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer before set/reset digital output on hysteresis low threshold 2

Variable	Timer on low level threshold
Address	[2668]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer before set/reset digital output on hysteresis low threshold 3

Variable	Timer on high level threshold
Address	[2669]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer before set/reset digital output on hysteresis high threshold 1

Variable	Timer on high level threshold
Address	[2670]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer before set/reset digital output on hysteresis high threshold 2

Variable	Timer on high level threshold
Address	[2671]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	Timer before set/reset digital output on hysteresis high threshold 3

Variable	Hysteresis Direction 1
Address	[2672]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Set on low threshold, reset on high threshold 1: Set on high threshold, reset on low threshold
Description	Hysteresis 1 Direction (0 : Set on low thresh. - Reset on high thresh. / 1 : Set on high thresh. - Reset on low thresh)

Variable	Hysteresis Direction 2
Address	[2673]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Set on low threshold, reset on high threshold 1: Set on high threshold, reset on low threshold
Description	Hysteresis 2 Direction (0 : Set on low thresh. - Reset on high thresh. / 1 : Set on high thresh. - Reset on low thresh)

Variable	Hysteresis Direction 3
Address	[2674]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Set on low threshold, reset on high threshold 1: Set on high threshold, reset on low threshold
Description	Hysteresis 3 Direction (0 : Set on low thresh. - Reset on high thresh. / 1 : Set on high thresh. - Reset on low thresh)

Variable	Hysteresis 1 enable for digital input
Address	[2769]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	This parameter enables the first hysteresis function on logic threshold to be activated. To do this: - Configure a digital input as 'Hysteresis low threshold DI1' and wire the hysteresis low threshold logic signal to this input. - Configure a digital input as 'Hysteresis high threshold DI1' and wire the hysteresis high threshold logic signal to this input. - Configure a digital output as 'Hysteresis output activation on DI1' and wire this output to the hysteresis control - Select the direction of activation/deactivation of the control

Variable	Hysteresis 2 enable for digital input
Address	[2770]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	This parameter enables the second hysteresis function on logic threshold to be activated. To do this: - Configure a digital input as 'Hysteresis low threshold DI2' and wire the hysteresis low threshold logic signal to this input. - Configure a digital input as 'Hysteresis high threshold DI2' and wire the hysteresis high threshold logic signal to this input. - Configure a digital output as 'Hysteresis output activation on DI2' and wire this output to the hysteresis control - Select the direction of activation/deactivation of the control

Variable	Hysteresis 3 enable for digital input
Address	[2771]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	This parameter enables the third hysteresis function on logic threshold to be activated. To do this: - Configure a digital input as 'Hysteresis low threshold DI3' and wire the hysteresis low threshold logic signal to this input. - Configure a digital input as 'Hysteresis high threshold DI3' and wire the hysteresis high threshold logic signal to this input. - Configure a digital output as 'Hysteresis output activation on DI3' and wire this output to the hysteresis control - Select the direction of activation/deactivation of the control

Variable	Hysteresis 4 enable for digital input
Address	[2772]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	This parameter enables the fourth hysteresis function on logic threshold to be activated. To do this: - Configure a digital input as 'Hysteresis low threshold DI4' and wire the hysteresis low threshold logic signal to this input. - Configure a digital input as 'Hysteresis high threshold DI4' and wire the hysteresis high threshold logic signal to this input. - Configure a digital output as 'Hysteresis output activation on DI4' and wire this output to the hysteresis control - Select the direction of activation/deactivation of the control

Variable	Hysteresis 5 enable for digital input
Address	[2773]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	This parameter enables the fifth hysteresis function on logic threshold to be activated. To do this: - Configure a digital input as 'Hysteresis low threshold DI5' and wire the hysteresis low threshold logic signal to this input. - Configure a digital input as 'Hysteresis high threshold DI5' and wire the hysteresis high threshold logic signal to this input. - Configure a digital output as 'Hysteresis output activation on DI5' and wire this output to the hysteresis control - Select the direction of activation/deactivation of the control

Variable	Hysteresis 6 enable for digital input
Address	[2774]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	This parameter enables the sixth hysteresis function on logic threshold to be activated. To do this: - Configure a digital input as 'Hysteresis low threshold DI6' and wire the hysteresis low threshold logic signal to this input. - Configure a digital input as 'Hysteresis high threshold DI6' and wire the hysteresis high threshold logic signal to this input. - Configure a digital output as 'Hysteresis output activation on DI6' and wire this output to the hysteresis control - Select the direction of activation/deactivation of the control

Variable	Hysteresis 7 enable for digital input
Address	[2775]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	This parameter enables the seventh hysteresis function on logic threshold to be activated. To do this: - Configure a digital input as 'Hysteresis low threshold DI7' and wire the hysteresis low threshold logic signal to this input. - Configure a digital input as 'Hysteresis high threshold DI7' and wire the hysteresis high threshold logic signal to this input. - Configure a digital output as 'Hysteresis output activation on DI7' and wire this output to the hysteresis control - Select the direction of activation/deactivation of the control

Variable	Hysteresis 8 enable for digital input
Address	[2776]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: No 1: Yes
Description	This parameter enables the eighth hysteresis function on logic threshold to be activated. To do this: - Configure a digital input as 'Hysteresis low threshold DI8' and wire the hysteresis low threshold logic signal to this input. - Configure a digital input as 'Hysteresis high threshold DI8' and wire the hysteresis high threshold logic signal to this input. - Configure a digital output as 'Hysteresis output activation on DI8' and wire this output to the hysteresis control - Select the direction of activation/deactivation of the control

Variable	Timer ON hysteresis 1
Address	[2777]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	This parameter allows to set the time between the moment when the activation threshold is reached and the moment when the command is activated.

Variable	Timer ON hysteresis 2
Address	[2778]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	This parameter allows to set the time between the moment when the activation threshold is reached and the moment when the command is activated.

Variable	Timer ON hysteresis 3
Address	[2779]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	This parameter allows to set the time between the moment when the activation threshold is reached and the moment when the command is activated.

Variable	Timer ON hysteresis 4
Address	[2780]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	This parameter allows to set the time between the moment when the activation threshold is reached and the moment when the command is activated.

Variable	Timer ON hysteresis 5
Address	[2781]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	This parameter allows to set the time between the moment when the activation threshold is reached and the moment when the command is activated.

Variable	Timer ON hysteresis 6
Address	[2782]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	This parameter allows to set the time between the moment when the activation threshold is reached and the moment when the command is activated.

Variable	Timer ON hysteresis 7
Address	[2783]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	This parameter allows to set the time between the moment when the activation threshold is reached and the moment when the command is activated.

Variable	Timer ON hysteresis 8
Address	[2784]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	s
Min value	0
Max value	9999
Description	This parameter allows to set the time between the moment when the activation threshold is reached and the moment when the command is activated.

Variable	Direction hysteresis 1
Address	[2785]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Set on low threshold, reset on high threshold 1: Set on high threshold, reset on low threshold
Description	This parameter allows to set the direction in which the hysteresis should work. 2 choices are possible: - Activate the command when the low threshold is active and deactivate it when the high threshold is active - Activate the command when the high threshold is active and deactivate it when the low threshold is active

Variable	Direction hysteresis 2
Address	[2786]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Set on low threshold, reset on high threshold 1: Set on high threshold, reset on low threshold
Description	This parameter allows to set the direction in which the hysteresis should work. 2 choices are possible: - Activate the command when the low threshold is active and deactivate it when the high threshold is active - Activate the command when the high threshold is active and deactivate it when the low threshold is active

Variable	Direction hysteresis 3
Address	[2787]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Set on low threshold, reset on high threshold 1: Set on high threshold, reset on low threshold
Description	This parameter allows to set the direction in which the hysteresis should work. 2 choices are possible: - Activate the command when the low threshold is active and deactivate it when the high threshold is active - Activate the command when the high threshold is active and deactivate it when the low threshold is active

Variable	Direction hysteresis 4
Address	[2788]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Set on low threshold, reset on high threshold 1: Set on high threshold, reset on low threshold
Description	This parameter allows to set the direction in which the hysteresis should work. 2 choices are possible: - Activate the command when the low threshold is active and deactivate it when the high threshold is active - Activate the command when the high threshold is active and deactivate it when the low threshold is active

Variable	Direction hysteresis 5
Address	[2789]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Set on low threshold, reset on high threshold 1: Set on high threshold, reset on low threshold
Description	This parameter allows to set the direction in which the hysteresis should work. 2 choices are possible: - Activate the command when the low threshold is active and deactivate it when the high threshold is active - Activate the command when the high threshold is active and deactivate it when the low threshold is active

Variable	Direction hysteresis 6
Address	[2790]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Set on low threshold, reset on high threshold 1: Set on high threshold, reset on low threshold
Description	This parameter allows to set the direction in which the hysteresis should work. 2 choices are possible: - Activate the command when the low threshold is active and deactivate it when the high threshold is active - Activate the command when the high threshold is active and deactivate it when the low threshold is active

Variable	Direction hysteresis 7
Address	[2791]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Set on low threshold, reset on high threshold 1: Set on high threshold, reset on low threshold
Description	This parameter allows to set the direction in which the hysteresis should work. 2 choices are possible: - Activate the command when the low threshold is active and deactivate it when the high threshold is active - Activate the command when the high threshold is active and deactivate it when the low threshold is active

Variable	Direction hysteresis 8
Address	[2792]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Set on low threshold, reset on high threshold 1: Set on high threshold, reset on low threshold
Description	This parameter allows to set the direction in which the hysteresis should work. 2 choices are possible: - Activate the command when the low threshold is active and deactivate it when the high threshold is active - Activate the command when the high threshold is active and deactivate it when the low threshold is active

CAN bus settings

Variable	Master redundancy alarm
Address	[3066]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm
Description	Defines whether an alarm will be triggered on the redundancy master if the slave controls the redundant installation.

Variable	Slave rendundancy alarm
Address	[3067]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
List	0: Unused 3: Alarm
Description	Defines whether an alarm will be triggered on the slave when it controls the redundant installation.

Digital input functions

Generator

Variable	Generator breaker feedback
Address	[4501]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Breaker position feedback, when active the breaker is considered closed.

Variable	Remote start on load
Address	[4502]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Activation will start generator in automatic mode and close the generator breaker on load. If Load dependant start stop is used this input must remain active all the time to allow load dependent start stop to manage start/stop sequences.

Variable	Generator ready
Address	[4523]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	To be used only if the external start sequence is activated, and to indicate to the automated system when motor speed stability must be checked. If this function is not used during an external start sequence, the generator switches to speed stabilization check as soon as speed exceeds 95% of nominal. If this function is used during an external start sequence, the generator switches to speed stabilization check as soon as this input is activated. If the input is declared and missing while the generator is on load, a critical fault will be triggered. If the input is declared and missing while the generator is starting, a start fault will be triggered after the corresponding time delay.

Variable	Start inhibition
Address	[4524]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Prevents engine from starting, input will block start sequence only if active before starting demand.

Variable	Safety inhibition mode (NFE37312)
Address	[4610]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Safety inhibition mode: will disable all configured protections of the controller except : Overspeed, Emergency stop and short-circuit. Other fault will be displayed as alarm dedicated Safety inhibition mode running hours counter will be incremented in Safety inhibition mode.

Variable	Remote start off load
Address	[4611]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Activation will start generator(s) in automatic mode and keep breaker open: used for off load tests.

Variable	Remote start with timer
Address	[4612]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Activation starts the generator(s) in automatic mode and waits for an adjustable delay until the generator(s) are ready before closing the circuit breaker. Used to extend the start sequence and preheat the generator(s) at nominal frequency.

Engine

Variable	Preglow request
Address	[4534]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Manual prestart auxiliary request, will activate the output 'Pre-start (Glow plugs & Auxiliaries)' when in manual mode

CAN bus ECU/ECM

Variable	Inhibition switch for Aftertreatment regeneration
Address	[4643]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Input function to inhibit regeneration for after-treatment (DPF and SCR)

Variable	Force switch for Aftertreatment regeneration
Address	[4644]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Input function to force regeneration for after-treatment (DPF and SCR)

Inputs/outputs

Variable	Digital output 1 forced
Address	[4630]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Activating this input will force activation of digital ouput 1.

Variable	Digital output 2 forced
Address	[4631]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Activating this input will force activation of digital ouput 2.

Variable	Digital output 3 forced
Address	[4632]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Activating this input will force activation of digital ouput 3.

Variable	Digital output 4 forced
Address	[4633]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Activating this input will force activation of digital ouput 4.

Variable	Digital output 5 forced
Address	[4634]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Activating this input will force activation of digital ouput 5.

Variable	Digital output 6 forced
Address	[4635]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Activating this input will force activation of digital ouput 6.

Variable	Relay 1 forced
Address	[4950]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Activating this input will force activation of relay ouput 1.

Variable	Relay 2 forced
Address	[4951]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Activating this input will force activation of relay ouput 2.

Power Plant

Variable	External non essential trip request
Address	[4537]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	External activation of the load shedding protection outputs.Use only if load shedding is enable.

Variable	Priority generator
Address	[4538]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Use only when Load Dependent Start Stop is configured. This function will force the generator to start if it was waiting to stop in automatic mode. The generator will be on load as long as the input is active, and will inhibit automatic stop depending on load.

Variable	Unload generator if load-dependent start-stop rules OK
Address	[4543]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Use only when Load Dependent Start Stop is configured. If this function is enabled, when the automated system decides to stop a generator, that generator will be stopped first.

Variable	Start all generators
Address	[4640]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	CAN bus broadcasted remote start. Activating this input will send a remote start on load command to all other generators of the same segment number.

Variable	Slave in service input
Address	[4645]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	Allows the controller to know if a slave controls the installation in case of product redundancy

Variable	Master Return
Address	[4646]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	When product redundancy is activated this function allows control of the installation to be returned to the master.

Variable	Watchdog input
Address	[4647]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	1
Description	If this input is on the product considers that its Master in a redundant installation is alive. - Connect the Master's Watchdog to this input on the Slave side.

Alternative selections

Variable	Alternative selection 1
Address	[4594]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Available variable to toggle a parameter between 2 values. See Alternative selection function.

Variable	Alternative selection 2
Address	[4595]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Available variable to toggle a parameter between 2 values. See Alternative selection function.

Variable	Alternative selection 3
Address	[4596]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Available variable to toggle a parameter between 2 values. See Alternative selection function.

Variable	Alternative selection 4
Address	[4597]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Available variable to toggle a parameter between 2 values. See Alternative selection function.

Variable	Alternative selection 5
Address	[4598]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Available variable to toggle a parameter between 2 values. See Alternative selection function.

Variable	Alternative selection 6
Address	[4599]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Available variable to toggle a parameter between 2 values. See Alternative selection function.

Variable	Alternative selection 7
Address	[4600]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Available variable to toggle a parameter between 2 values. See Alternative selection function.

Variable	Alternative selection 8
Address	[4601]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Available variable to toggle a parameter between 2 values. See Alternative selection function.

Variable	Alternative selection 9
Address	[4602]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Available variable to toggle a parameter between 2 values. See Alternative selection function.

Variable	Alternative selection 10
Address	[4603]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Available variable to toggle a parameter between 2 values. See Alternative selection function.

Variable	Alternative selection 11
Address	[4604]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Available variable to toggle a parameter between 2 values. See Alternative selection function.

Variable	Alternative selection 12
Address	[4605]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Available variable to toggle a parameter between 2 values. See Alternative selection function.

Variable	Alternative selection 13
Address	[4606]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Available variable to toggle a parameter between 2 values. See Alternative selection function.

Variable	Alternative selection 14
Address	[4607]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	14th available variable to switch a parameter between 2 values

Variable	Alternative selection 15
Address	[4608]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	15th available variable to switch a parameter between 2 values

Variable	Alternative selection 16
Address	[4609]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	16th available variable to switch a parameter between 2 values

Hysteresis

Variable	Hysteresis low threshold DI1
Address	[4614]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Activate to trigger the corresponding hysteresis low threshold.

Variable	Hysteresis low threshold DI2
Address	[4615]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Activate to trigger the corresponding hysteresis low threshold.

Variable	Hysteresis low threshold DI3
Address	[4616]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Activate to trigger the corresponding hysteresis low threshold.

Variable	Hysteresis low threshold DI4
Address	[4617]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Activate to trigger the corresponding hysteresis low threshold.

Variable	Hysteresis low threshold DI5
Address	[4618]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Activate to trigger the corresponding hysteresis low threshold.

Variable	Hysteresis low threshold DI6
Address	[4619]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Activate to trigger the corresponding hysteresis low threshold.

Variable	Hysteresis low threshold DI7
Address	[4620]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Activate to trigger the corresponding hysteresis low threshold.

Variable	Hysteresis low threshold DI8
Address	[4621]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Activate to trigger the corresponding hysteresis low threshold.

Variable	Hysteresis high threshold DI1
Address	[4622]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Activate to trigger the corresponding hysteresis high threshold.

Variable	Hysteresis high threshold DI2
Address	[4623]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Activate to trigger the corresponding hysteresis high threshold.

Variable	Hysteresis high threshold DI3
Address	[4624]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Activate to trigger the corresponding hysteresis high threshold.

Variable	Hysteresis high threshold DI4
Address	[4625]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Activate to trigger the corresponding hysteresis high threshold.

Variable	Hysteresis high threshold DI5
Address	[4626]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Activate to trigger the corresponding hysteresis high threshold.

Variable	Hysteresis high threshold DI6
Address	[4627]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Activate to trigger the corresponding hysteresis high threshold.

Variable	Hysteresis high threshold DI7
Address	[4628]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Activate to trigger the corresponding hysteresis high threshold.

Variable	Hysteresis high threshold DI8
Address	[4629]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Activate to trigger the corresponding hysteresis high threshold.

Remote buttons

Variable	Faults acknowledge
Address	[4506]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	External reset function. Aknowledgement of alarm/fault present in display pages (same action as hold INFO for 2 seconds).

Variable	Manual start request
Address	[4509]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Manual start command (alternative to front panel push button). Active in manual mode only.

Variable	Manual stop request
Address	[4510]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Manual stop command (alternative to front panel push button). Active in manual mode only.

Variable	Manual mode request
Address	[4511]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Force controller in manual mode, same effect as MAN button.

Variable	Manual mode inhibition
Address	[4512]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Prevent controller to go in manual mode (Remotely or front panel).

Variable	Auto mode request
Address	[4513]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Force controller in auto mode, same effect as AUTO button.

Variable	Increase speed in manual mode
Address	[4514]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Remote frequency increase request in manual mode with circuit breaker open (alternative to front panel button).

Variable	Decrease speed in manual mode
Address	[4515]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Remote frequency decrease request in manual mode with circuit breaker open (alternative to front panel button)

Variable	Increase voltage in manual mode
Address	[4516]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Remote voltage increase request in manual mode with circuit breaker open (alternative to front panel button)

Variable	Decrease voltage in manual mode
Address	[4517]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Remote voltage decrease request in manual mode with circuit breaker open (alternative to front panel button)

Variable	Generator breaker opening in manual mode
Address	[4518]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Remote manual opening of generator breaker in manual mode (alternative to front button). Active in manual mode only.

Variable	Generator breaker closing in manual mode
Address	[4520]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Remote manual close of generator breaker in manual mode (alternative to front button). Active in manual mode only.

Variable	Stop horn
Address	[4530]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	External horn stop request. Used when Horn output is configured.

Variable	Led test
Address	[4580]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Activates all LEDs of the module in order to check that the LEDs work

Variable	Test mode request
Address	[4590]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Unit	Without unit
Min value	0
Max value	32
Description	Force controller in test mode, same effect as TEST button.

Bitfields

Inputs/outputs

Variable	Physical status of digital input 1
Address	[953.0]
Type	Bitfield 16 bits
Description	Physical state of the digital input (without application of polarity, validity and time delays)

Variable	Physical status of digital input 2
Address	[953.1]
Type	Bitfield 16 bits
Description	Physical state of the digital input (without application of polarity, validity and time delays)

Variable	Physical status of digital input 3
Address	[953.2]
Type	Bitfield 16 bits
Description	Physical state of the digital input (without application of polarity, validity and time delays)

Variable	Physical status of digital input 4
Address	[953.3]
Type	Bitfield 16 bits
Description	Physical state of the digital input (without application of polarity, validity and time delays)

Variable	Physical status of digital input 5
Address	[953.4]
Type	Bitfield 16 bits
Description	Physical state of the digital input (without application of polarity, validity and time delays)

Variable	Physical status of digital input 6
Address	[953.5]
Type	Bitfield 16 bits
Description	Physical state of the digital input (without application of polarity, validity and time delays)

Variable	Physical status of digital input 7
Address	[953.6]
Type	Bitfield 16 bits
Description	Physical state of the digital input (without application of polarity, validity and time delays)

Variable	Physical status of digital input 8
Address	[953.7]
Type	Bitfield 16 bits
Description	Physical state of the digital input (without application of polarity, validity and time delays)

Variable	Physical status of digital input 9
Address	[953.8]
Type	Bitfield 16 bits
Description	Physical state of the digital input (without application of polarity, validity and time delays)

Variable	Digital input 1
Address	[954.0]
Type	Bitfield 16 bits
Description	Physical status of digital inputs (including analog inputs converted in digital): 1 = Input conected to negative, 0 = Input not conected. Check documentation for complete list

Variable	Digital input 2
Address	[954.1]
Type	Bitfield 16 bits
Description	-

Variable	Digital input 3
Address	[954.2]
Type	Bitfield 16 bits
Description	-

Variable	Digital input 4
Address	[954.3]
Type	Bitfield 16 bits
Description	-

Variable	Digital input 5
Address	[954.4]
Type	Bitfield 16 bits
Description	-

Variable	Digital input 6
Address	[954.5]
Type	Bitfield 16 bits
Description	-

Variable	Digital input 7
Address	[954.6]
Type	Bitfield 16 bits
Description	-

Variable	Digital input 8
Address	[954.7]
Type	Bitfield 16 bits
Description	-

Variable	Digital input 9
Address	[954.8]
Type	Bitfield 16 bits
Description	-

Variable	Analog input 1 setup as digital input
Address	[954.9]
Type	Bitfield 16 bits
Description	-

Variable	Analog input 2 setup as digital input
Address	[954.10]
Type	Bitfield 16 bits
Description	-

Variable	Analog input 3 setup as digital input
Address	[954.11]
Type	Bitfield 16 bits
Description	-

Variable	Digital output 1
Address	[957.0]
Type	Bitfield 16 bits
Description	Physical status of digital ouputs/relay : 1 = powered or closed, 0 = open. Check documentation for complete list

Variable	Digital output 2
Address	[957.1]
Type	Bitfield 16 bits
Description	-

Variable	Digital output 3
Address	[957.2]
Type	Bitfield 16 bits
Description	-

Variable	Digital output 4
Address	[957.3]
Type	Bitfield 16 bits
Description	-

Variable	Digital output 5
Address	[957.4]
Type	Bitfield 16 bits
Description	-

Variable	Digital output 6
Address	[957.5]
Type	Bitfield 16 bits
Description	-

Variable	Relay 1
Address	[957.6]
Type	Bitfield 16 bits
Description	-

Variable	Relay 2
Address	[957.7]
Type	Bitfield 16 bits
Description	-

I/O CAN bus expansion

Variable	CANopen digital Input 1
Address	[955.0]
Type	Bitfield 16 bits
Description	Physical status of CAN Open inputs : 1 = Input conected to negative, 0 = Input not conected. Check documentation for complete list

Variable	CANopen digital Input 2
Address	[955.1]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 3
Address	[955.2]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 4
Address	[955.3]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 5
Address	[955.4]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 6
Address	[955.5]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 7
Address	[955.6]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 8
Address	[955.7]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 9
Address	[955.8]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 10
Address	[955.9]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 11
Address	[955.10]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 12
Address	[955.11]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 13
Address	[955.12]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 14
Address	[955.13]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 15
Address	[955.14]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 16
Address	[955.15]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 17
Address	[956.0]
Type	Bitfield 16 bits
Description	Physical status of CAN Open inputs : 1 = Input conected to negative, 0 = Input not conected. Check documentation for complete list

Variable	CANopen digital Input 18
Address	[956.1]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 19
Address	[956.2]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 20
Address	[956.3]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 21
Address	[956.4]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 22
Address	[956.5]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 23
Address	[956.6]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 24
Address	[956.7]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 25
Address	[956.8]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 26
Address	[956.9]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 27
Address	[956.10]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 28
Address	[956.11]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 29
Address	[956.12]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 30
Address	[956.13]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 31
Address	[956.14]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 32
Address	[956.15]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 1
Address	[958.0]
Type	Bitfield 16 bits
Description	Physical status of CAN Open inputs : 1 = Input conected to negative, 0 = Input not conected. Check documentation for complete list

Variable	CANopen digital Output 2
Address	[958.1]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 3
Address	[958.2]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 4
Address	[958.3]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 5
Address	[958.4]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 6
Address	[958.5]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 7
Address	[958.6]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 8
Address	[958.7]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 9
Address	[958.8]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 10
Address	[958.9]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 11
Address	[958.10]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 12
Address	[958.11]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 13
Address	[958.12]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 14
Address	[958.13]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 15
Address	[958.14]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 16
Address	[958.15]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 17
Address	[959.0]
Type	Bitfield 16 bits
Description	Physical status of CAN Open inputs : 1 = Input conected to negative, 0 = Input not conected. Check documentation for complete list

Variable	CANopen digital Output 18
Address	[959.1]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 19
Address	[959.2]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 20
Address	[959.3]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 21
Address	[959.4]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 22
Address	[959.5]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 23
Address	[959.6]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 24
Address	[959.7]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 25
Address	[959.8]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 26
Address	[959.9]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 27
Address	[959.10]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 28
Address	[959.11]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 29
Address	[959.12]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 30
Address	[959.13]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 31
Address	[959.14]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 32
Address	[959.15]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 33
Address	[978.0]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 34
Address	[978.1]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 35
Address	[978.2]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 36
Address	[978.3]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 37
Address	[978.4]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 38
Address	[978.5]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 39
Address	[978.6]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 40
Address	[978.7]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 41
Address	[978.8]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 42
Address	[978.9]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 43
Address	[978.10]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 44
Address	[978.11]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 45
Address	[978.12]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 46
Address	[978.13]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 47
Address	[978.14]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 48
Address	[978.15]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 49
Address	[979.0]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 50
Address	[979.1]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 51
Address	[979.2]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 52
Address	[979.3]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 53
Address	[979.4]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 54
Address	[979.5]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 55
Address	[979.6]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 56
Address	[979.7]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 57
Address	[979.8]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 58
Address	[979.9]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 59
Address	[979.10]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 60
Address	[979.11]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 61
Address	[979.12]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 62
Address	[979.13]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 63
Address	[979.14]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Input 64
Address	[979.15]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 33
Address	[980.0]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 34
Address	[980.1]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 35
Address	[980.2]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 36
Address	[980.3]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 37
Address	[980.4]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 38
Address	[980.5]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 39
Address	[980.6]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 40
Address	[980.7]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 41
Address	[980.8]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 42
Address	[980.9]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 43
Address	[980.10]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 44
Address	[980.11]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 45
Address	[980.12]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 46
Address	[980.13]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 47
Address	[980.14]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 48
Address	[980.15]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 49
Address	[981.0]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 50
Address	[981.1]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 51
Address	[981.2]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 52
Address	[981.3]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 53
Address	[981.4]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 54
Address	[981.5]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 55
Address	[981.6]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 56
Address	[981.7]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 57
Address	[981.8]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 58
Address	[981.9]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 59
Address	[981.10]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 60
Address	[981.11]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 61
Address	[981.12]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 62
Address	[981.13]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 63
Address	[981.14]
Type	Bitfield 16 bits
Description	-

Variable	CANopen digital Output 64
Address	[981.15]
Type	Bitfield 16 bits
Description	-

Power Plant

Variable	Generator No.1 circuit breaker position
Address	[562.0]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Generator No.2 circuit breaker position
Address	[562.1]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Generator No.3 circuit breaker position
Address	[562.2]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Generator No.4 circuit breaker position
Address	[562.3]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Generator No.5 circuit breaker position
Address	[562.4]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Generator No.6 circuit breaker position
Address	[562.5]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Generator No.7 circuit breaker position
Address	[562.6]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Generator No.8 circuit breaker position
Address	[562.7]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Generator No.9 circuit breaker position
Address	[562.8]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Generator No.10 circuit breaker position
Address	[562.9]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Generator No.11 circuit breaker position
Address	[562.10]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Generator No.12 circuit breaker position
Address	[562.11]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Generator No.13 circuit breaker position
Address	[562.12]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Generator No.14 circuit breaker position
Address	[562.13]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Generator No.15 circuit breaker position
Address	[562.14]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Generator No.16 circuit breaker position
Address	[562.15]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Generator No.17 circuit breaker position
Address	[563.0]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Generator No.18 circuit breaker position
Address	[563.1]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Generator No.19 circuit breaker position
Address	[563.2]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Generator No.20 circuit breaker position
Address	[563.3]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Generator No.21 circuit breaker position
Address	[563.4]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Generator No.22 circuit breaker position
Address	[563.5]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Generator No.23 circuit breaker position
Address	[563.6]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Generator No.24 circuit breaker position
Address	[563.7]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Generator No.25 circuit breaker position
Address	[563.8]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Generator No.26 circuit breaker position
Address	[563.9]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Generator No.27 circuit breaker position
Address	[563.10]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Generator No.28 circuit breaker position
Address	[563.11]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Generator No.29 circuit breaker position
Address	[563.12]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Generator No.30 circuit breaker position
Address	[563.13]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Generator No.31 circuit breaker position
Address	[563.14]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Generator No.32 circuit breaker position
Address	[563.15]
Type	Bitfield 16 bits
Description	0 if circuit breaker opened, 1 if circuit breaker closed

Variable	Mains/tie breaker No.1 circuit breaker position
Address	[976.0]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Variable	Mains/tie breaker No.2 circuit breaker position
Address	[976.1]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Variable	Mains/tie breaker No.3 circuit breaker position
Address	[976.2]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Variable	Mains/tie breaker No.4 circuit breaker position
Address	[976.3]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Variable	Mains/tie breaker No.5 circuit breaker position
Address	[976.4]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Variable	Mains/tie breaker No.6 circuit breaker position
Address	[976.5]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Variable	Mains/tie breaker No.7 circuit breaker position
Address	[976.6]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Variable	Mains/tie breaker No.8 circuit breaker position
Address	[976.7]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Variable	Mains/tie breaker No.9 circuit breaker position
Address	[976.8]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Variable	Mains/tie breaker No.10 circuit breaker position
Address	[976.9]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Variable	Mains/tie breaker No.11 circuit breaker position
Address	[976.10]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Variable	Mains/tie breaker No.12 circuit breaker position
Address	[976.11]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Variable	Mains/tie breaker No.13 circuit breaker position
Address	[976.12]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Variable	Mains/tie breaker No.14 circuit breaker position
Address	[976.13]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Variable	Mains/tie breaker No.15 circuit breaker position
Address	[976.14]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Variable	Mains/tie breaker No.16 circuit breaker position
Address	[976.15]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Variable	Mains/tie breaker No.17 circuit breaker position
Address	[977.0]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Variable	Mains/tie breaker No.18 circuit breaker position
Address	[977.1]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Variable	Mains/tie breaker No.19 circuit breaker position
Address	[977.2]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Variable	Mains/tie breaker No.20 circuit breaker position
Address	[977.3]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Variable	Mains/tie breaker No.21 circuit breaker position
Address	[977.4]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Variable	Mains/tie breaker No.22 circuit breaker position
Address	[977.5]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Variable	Mains/tie breaker No.23 circuit breaker position
Address	[977.6]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Variable	Mains/tie breaker No.24 circuit breaker position
Address	[977.7]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Variable	Mains/tie breaker No.25 circuit breaker position
Address	[977.8]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Variable	Mains/tie breaker No.26 circuit breaker position
Address	[977.9]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Variable	Mains/tie breaker No.27 circuit breaker position
Address	[977.10]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Variable	Mains/tie breaker No.28 circuit breaker position
Address	[977.11]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Variable	Mains/tie breaker No.29 circuit breaker position
Address	[977.12]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Variable	Mains/tie breaker No.30 circuit breaker position
Address	[977.13]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Variable	Mains/tie breaker No.31 circuit breaker position
Address	[977.14]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Variable	Mains/tie breaker No.32 circuit breaker position
Address	[977.15]
Type	Bitfield 16 bits
Description	On MASTER COMPACT 1B, 0 if circuit breaker opened, 1 if circuit breaker closed. On MASTER COMPACT, 0 if at least 1 of the 2 circuit breakers is opened, 1 if both circuit breakers are closed. On BTB COMPACT, 0 if circuit breaker opened, 1 if circuit breaker closed.

Generator protections

Variable	Over frequency level 1 active as an alarm
Address	[962.0]
Type	Bitfield 16 bits
Description	For Modbus reading

Variable	Over frequency level 2 active as an alarm
Address	[962.1]
Type	Bitfield 16 bits
Description	-

Variable	Under frequency level 1 active as an alarm
Address	[962.2]
Type	Bitfield 16 bits
Description	-

Variable	Under frequency level 2 active as an alarm
Address	[962.3]
Type	Bitfield 16 bits
Description	-

Variable	Over voltage level 1 active as an alarm
Address	[962.4]
Type	Bitfield 16 bits
Description	-

Variable	Over voltage level 2 active as an alarm
Address	[962.5]
Type	Bitfield 16 bits
Description	-

Variable	Under voltage level 1 active as an alarm
Address	[962.6]
Type	Bitfield 16 bits
Description	-

Variable	Under voltage level 2 active as an alarm
Address	[962.7]
Type	Bitfield 16 bits
Description	-

Variable	Minimum kW level 1 active as an alarm
Address	[962.8]
Type	Bitfield 16 bits
Description	-

Variable	Minimum kW level 2 active as an alarm
Address	[962.9]
Type	Bitfield 16 bits
Description	-

Variable	Maximum kW level 1 active as an alarm
Address	[962.10]
Type	Bitfield 16 bits
Description	-

Variable	Maximum kW level2 active as an alarm
Address	[962.11]
Type	Bitfield 16 bits
Description	-

Variable	Reverse kW level 1 active as an alarm
Address	[962.12]
Type	Bitfield 16 bits
Description	-

Variable	Reverse kW level 2 active as an alarm
Address	[962.13]
Type	Bitfield 16 bits
Description	-

Variable	Minimum kVAR level 1 active as an alarm
Address	[962.14]
Type	Bitfield 16 bits
Description	-

Variable	Minimum kVAR level 2 active as an alarm
Address	[962.15]
Type	Bitfield 16 bits
Description	-

Variable	Over frequency level 1 active as a fault
Address	[963.0]
Type	Bitfield 16 bits
Description	For Modbus reading

Variable	Over frequency level 2 active as a fault
Address	[963.1]
Type	Bitfield 16 bits
Description	-

Variable	Under frequency level 1 active as a fault
Address	[963.2]
Type	Bitfield 16 bits
Description	-

Variable	Under frequency level 2 active as a fault
Address	[963.3]
Type	Bitfield 16 bits
Description	-

Variable	Over voltage level 1 active as a fault
Address	[963.4]
Type	Bitfield 16 bits
Description	-

Variable	Over voltage level 2 active as a fault
Address	[963.5]
Type	Bitfield 16 bits
Description	-

Variable	Under voltage level 1 active as a fault
Address	[963.6]
Type	Bitfield 16 bits
Description	-

Variable	Under voltage level 2 active as a fault
Address	[963.7]
Type	Bitfield 16 bits
Description	-

Variable	Minimum kW level 1 active as a fault
Address	[963.8]
Type	Bitfield 16 bits
Description	-

Variable	Minimum kW level 2 active as a fault
Address	[963.9]
Type	Bitfield 16 bits
Description	-

Variable	Maximum kW level 1 active as a fault
Address	[963.10]
Type	Bitfield 16 bits
Description	-

Variable	Maximum kW level 2 active as a fault
Address	[963.11]
Type	Bitfield 16 bits
Description	-

Variable	Reverse kW level 1 active as a fault
Address	[963.12]
Type	Bitfield 16 bits
Description	-

Variable	Reverse kW level 2 active as a fault
Address	[963.13]
Type	Bitfield 16 bits
Description	-

Variable	Minimum kVAR level 1 active as a fault
Address	[963.14]
Type	Bitfield 16 bits
Description	-

Variable	Minimum kVAR level 2 active as a fault
Address	[963.15]
Type	Bitfield 16 bits
Description	-

Variable	Maximum kVAR level 1 active as an alarm
Address	[964.0]
Type	Bitfield 16 bits
Description	For Modbus reading

Variable	Maximum kVAR level 2 active as an alarm
Address	[964.1]
Type	Bitfield 16 bits
Description	-

Variable	Reverse kVAR level 1 active as an alarm
Address	[964.2]
Type	Bitfield 16 bits
Description	-

Variable	Reverse kVAR level 2 active as an alarm
Address	[964.3]
Type	Bitfield 16 bits
Description	-

Variable	Maximum current level 1 active as an alarm
Address	[964.4]
Type	Bitfield 16 bits
Description	-

Variable	Maximum current level 2 active as an alarm
Address	[964.5]
Type	Bitfield 16 bits
Description	-

Variable	Maximum neutral current level 1 active as an alarm
Address	[964.6]
Type	Bitfield 16 bits
Description	-

Variable	Maximum neutral current level 2 active as an alarm
Address	[964.7]
Type	Bitfield 16 bits
Description	-

Variable	Short circuit active as an alarm
Address	[964.8]
Type	Bitfield 16 bits
Description	-

Variable	Uneven kW active as an alarm
Address	[964.9]
Type	Bitfield 16 bits
Description	-

Variable	Uneven kVAR active as an alarm
Address	[964.10]
Type	Bitfield 16 bits
Description	-

Variable	Last trip out active as an alarm
Address	[964.13]
Type	Bitfield 16 bits
Description	-

Variable	Earth fault level 1 active as an alarm
Address	[964.14]
Type	Bitfield 16 bits
Description	-

Variable	Earth fault level 2 active as an alarm
Address	[964.15]
Type	Bitfield 16 bits
Description	-

Variable	Maximum kVAR level 1 active as a fault
Address	[965.0]
Type	Bitfield 16 bits
Description	For Modbus reading

Variable	Maximum kVAR level 2 active as a fault
Address	[965.1]
Type	Bitfield 16 bits
Description	-

Variable	Reverse kVAR level 1 active as a fault
Address	[965.2]
Type	Bitfield 16 bits
Description	-

Variable	Reverse kVAR level 2 active as a fault
Address	[965.3]
Type	Bitfield 16 bits
Description	-

Variable	Maximum current level 1 active as a fault
Address	[965.4]
Type	Bitfield 16 bits
Description	-

Variable	Maximum current level 2 active as a fault
Address	[965.5]
Type	Bitfield 16 bits
Description	-

Variable	Maximum neutral current level 1 active as a fault
Address	[965.6]
Type	Bitfield 16 bits
Description	-

Variable	Maximum neutral current level 2 active as a fault
Address	[965.7]
Type	Bitfield 16 bits
Description	-

Variable	Short circuit active as an alarm
Address	[965.8]
Type	Bitfield 16 bits
Description	-

Variable	Uneven kW active as a fault
Address	[965.9]
Type	Bitfield 16 bits
Description	-

Variable	Uneven kVAR active as a fault
Address	[965.10]
Type	Bitfield 16 bits
Description	-

Variable	Last trip out active as a fault
Address	[965.13]
Type	Bitfield 16 bits
Description	-

Variable	Earth fault level 1 active as a fault
Address	[965.14]
Type	Bitfield 16 bits
Description	-

Variable	Earth fault level 2 active as a fault
Address	[965.15]
Type	Bitfield 16 bits
Description	-

Variable	Mismatch rotophases level 1
Address	[4053.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Mismatch rotophases level 2
Address	[4053.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Minimum AVR output level 1
Address	[4211.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Minimum AVR output level 2
Address	[4211.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Maximum AVR output level 1
Address	[4212.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Maximum AVR output level 2
Address	[4212.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Generator over frequency level 1
Address	[4250.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Generator over frequency level 2
Address	[4250.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Generator under frequency level 1
Address	[4251.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Generator under frequency level 2
Address	[4251.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Generator over voltage level 1
Address	[4252.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Generator over voltage level 2
Address	[4252.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Generator under voltage level 1
Address	[4253.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Generator under voltage level 2
Address	[4253.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Generator minimum KW level 1
Address	[4254.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Generator minimum KW level 2
Address	[4254.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Generator maximum KW level 1
Address	[4255.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Generator maximum KW level 2
Address	[4255.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Generator reverse KW level 1
Address	[4256.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Generator reverse KW level 2
Address	[4256.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Generator minimum KVAR level 1
Address	[4257.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Generator minimum KVAR level 2
Address	[4257.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Generator maximum KVAR level 1
Address	[4258.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Generator maximum KVAR level 2
Address	[4258.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Generator reverse KVAR level 1
Address	[4259.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Generator reverse KVAR level 2
Address	[4259.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Generator maximum current level 1
Address	[4260.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Generator maximum current level 2
Address	[4260.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Generator maximum neutral current level 1
Address	[4261.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Generator maximum neutral current level 2
Address	[4261.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Generator short-circuit level 1
Address	[4262.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Generator short-circuit level 2
Address	[4262.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Uneven kW sharing fault level 1
Address	[4263.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Uneven kW sharing fault level 2
Address	[4263.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Uneven kVAR sharing fault level 1
Address	[4264.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Uneven kVAR sharing fault level 2
Address	[4264.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Generator earth fault current level 1
Address	[4267.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Generator earth fault current level 2
Address	[4267.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Generator voltage unbalance level 1
Address	[4268.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Generator voltage unbalance level 2
Address	[4268.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Generator current unbalance level 1
Address	[4269.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Generator current unbalance level 2
Address	[4269.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Generator rotophase level 1
Address	[4272.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Generator rotophase level 2
Address	[4272.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Bus protections

Variable	Over frequency level 1 active as an alarm
Address	[966.0]
Type	Bitfield 16 bits
Description	For Modbus reading

Variable	Over frequency level 2 active as an alarm
Address	[966.1]
Type	Bitfield 16 bits
Description	-

Variable	Under frequency level 1 active as an alarm
Address	[966.2]
Type	Bitfield 16 bits
Description	-

Variable	Under frequency level 2 active as an alarm
Address	[966.3]
Type	Bitfield 16 bits
Description	-

Variable	Over voltage level 1 active as an alarm
Address	[966.4]
Type	Bitfield 16 bits
Description	-

Variable	Over voltage level 2 active as an alarm
Address	[966.5]
Type	Bitfield 16 bits
Description	-

Variable	Under voltage level 1 active as an alarm
Address	[966.6]
Type	Bitfield 16 bits
Description	-

Variable	Under voltage level 2 active as an alarm
Address	[966.7]
Type	Bitfield 16 bits
Description	-

Variable	Minimum kVAR level 1 active as an alarm
Address	[966.14]
Type	Bitfield 16 bits
Description	-

Variable	Minimum kVAR level 2 active as an alarm
Address	[966.15]
Type	Bitfield 16 bits
Description	-

Variable	Over frequency level 1 active as a fault
Address	[967.0]
Type	Bitfield 16 bits
Description	For Modbus reading

Variable	Over frequency level 2 active as a fault
Address	[967.1]
Type	Bitfield 16 bits
Description	For Modbus Readings

Variable	Under frequency level 1 active as a fault
Address	[967.2]
Type	Bitfield 16 bits
Description	-

Variable	Under frequency level 2 active as a fault
Address	[967.3]
Type	Bitfield 16 bits
Description	-

Variable	Over voltage level 1 active as a fault
Address	[967.4]
Type	Bitfield 16 bits
Description	-

Variable	Over voltage level 2 active as a fault
Address	[967.5]
Type	Bitfield 16 bits
Description	-

Variable	Under voltage level 1 active as a fault
Address	[967.6]
Type	Bitfield 16 bits
Description	-

Variable	Under voltage level 2 active as a fault
Address	[967.7]
Type	Bitfield 16 bits
Description	-

Variable	Minimum kVAR level 1 active as a fault
Address	[967.14]
Type	Bitfield 16 bits
Description	-

Variable	Minimum kVAR level 2 active as a fault
Address	[967.15]
Type	Bitfield 16 bits
Description	-

Variable	Bus over frequency level 1
Address	[4300.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Bus over frequency level 2
Address	[4300.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Bus under frequency level 1
Address	[4301.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Bus under frequency level 2
Address	[4301.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Bus over voltage level 1
Address	[4302.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Bus over voltage level 2
Address	[4302.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Bus under voltage level 1
Address	[4303.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Bus under voltage level 2
Address	[4303.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Bus voltage unbalance level 1
Address	[4314.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Bus voltage unbalance level 2
Address	[4314.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Bus rotophase level 1
Address	[4318.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Bus rotophase level 2
Address	[4318.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Engine protections

Variable	Engine over speed level 1
Address	[4200.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Engine over speed level 2
Address	[4200.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Engine under speed level 1
Address	[4201.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Engine under speed level 2
Address	[4201.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Battery minimum voltage level 1
Address	[4202.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Battery minimum voltage level 2
Address	[4202.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Battery maximum voltage level 1
Address	[4203.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Battery maximum voltage level 2
Address	[4203.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Engine minimum oil pressure level 1
Address	[4204.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Engine minimum oil pressure level 2
Address	[4204.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Engine maximum water temperature level 1
Address	[4205.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Engine maximum water temperature level 2
Address	[4205.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Analog input 1 protection threshold 1
Address	[4206.0]
Type	Bitfield 16 bits
Description	-

Variable	Analog input 1 protection threshold 2
Address	[4206.1]
Type	Bitfield 16 bits
Description	-

Variable	Analog input 2 protection threshold 1
Address	[4207.0]
Type	Bitfield 16 bits
Description	-

Variable	Analog input 2 protection threshold 2
Address	[4207.1]
Type	Bitfield 16 bits
Description	-

Variable	Analog input 3 protection threshold 1
Address	[4208.0]
Type	Bitfield 16 bits
Description	-

Variable	Analog input 3 protection threshold 2
Address	[4208.1]
Type	Bitfield 16 bits
Description	-

Variable	Minimum speed output level 1
Address	[4209.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Minimum speed output level 2
Address	[4209.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Maximum speed output level 1
Address	[4210.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Maximum speed output level 2
Address	[4210.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Communication

Variable	Write date/time
Address	[3015.0]
Type	Bitfield 16 bits
Description	-

Variable	Write engine meters
Address	[3015.1]
Type	Bitfield 16 bits
Description	-

Variable	Write input functions
Address	[3015.3]
Type	Bitfield 16 bits
Description	-

Variable	Reading via Modbus TCP
Address	[3015.8]
Type	Bitfield 16 bits
Description	-

Variable	Writing via Modbus TCP
Address	[3015.9]
Type	Bitfield 16 bits
Description	-

Others

Variable	New fault occured: Fault LED is blinking
Address	[950.0]
Type	Bitfield 16 bits
Description	Bitfiled about protection status of the controller: Bit 4 = 1 : Engine running Bit 3 = 1 : Alarm exist & acknowledged : Alarm LED is on Bit 2 = 1 : Fault exist & acknowledged : Fault LED is on Bit 1 = 1 : New alarm occured : Alarm LED is blinking Bit 0 = 1 : New fault occured : Fault LED is blinking

Variable	New alarm occured: Alarm LED is blinking
Address	[950.1]
Type	Bitfield 16 bits
Description	-

Variable	Fault exist: Fault LED is on
Address	[950.2]
Type	Bitfield 16 bits
Description	-

Variable	Alarm exist: Alarm LED is on
Address	[950.3]
Type	Bitfield 16 bits
Description	-

Variable	Engine running
Address	[950.4]
Type	Bitfield 16 bits
Description	-

Variable	Overspeed level 1 active as an alarm
Address	[960.0]
Type	Bitfield 16 bits
Description	For Modbus reading

Variable	Overspeed level 2 active as an alarm
Address	[960.1]
Type	Bitfield 16 bits
Description	-

Variable	Under speed level 1 active as an alarm
Address	[960.2]
Type	Bitfield 16 bits
Description	-

Variable	Under speed level 2 active as an alarm
Address	[960.3]
Type	Bitfield 16 bits
Description	-

Variable	Battery minimum voltage level 1 active as an alarm
Address	[960.4]
Type	Bitfield 16 bits
Description	-

Variable	Battery minimum voltage level 2 active as an alarm
Address	[960.5]
Type	Bitfield 16 bits
Description	-

Variable	Battery maximum voltage 1 active as an alarm
Address	[960.6]
Type	Bitfield 16 bits
Description	-

Variable	Battery maximum voltage level 2 active as an alarm
Address	[960.7]
Type	Bitfield 16 bits
Description	-

Variable	Minimum oil pressure level 1 active as an alarm
Address	[960.8]
Type	Bitfield 16 bits
Description	-

Variable	Minimum oil pressure level 2 active as an alarm
Address	[960.9]
Type	Bitfield 16 bits
Description	-

Variable	Maximum water temperature level 1 active as an alarm
Address	[960.10]
Type	Bitfield 16 bits
Description	-

Variable	Maximum water temperature level 2 active as an alarm
Address	[960.11]
Type	Bitfield 16 bits
Description	-

Variable	Overspeed level 1 active as a fault
Address	[961.0]
Type	Bitfield 16 bits
Description	For Modbus reading

Variable	Overspeed level 2 active as a fault
Address	[961.1]
Type	Bitfield 16 bits
Description	-

Variable	Under speed level 1 active as a fault
Address	[961.2]
Type	Bitfield 16 bits
Description	-

Variable	Under speed level 2 active as a fault
Address	[961.3]
Type	Bitfield 16 bits
Description	-

Variable	Battery minimal voltage level 1 active as a fault
Address	[961.4]
Type	Bitfield 16 bits
Description	-

Variable	Battery minimal voltage level 2 active as a fault
Address	[961.5]
Type	Bitfield 16 bits
Description	-

Variable	Battery maximum voltage level 1 active as a fault
Address	[961.6]
Type	Bitfield 16 bits
Description	-

Variable	Battery maximum voltage level 2 active as a fault
Address	[961.7]
Type	Bitfield 16 bits
Description	-

Variable	Minimum oil pressure level 1 active as a fault
Address	[961.8]
Type	Bitfield 16 bits
Description	-

Variable	Minimum oil pressure level 2 active as a fault
Address	[961.9]
Type	Bitfield 16 bits
Description	-

Variable	Maximum water temperature level 1 active as a fault
Address	[961.10]
Type	Bitfield 16 bits
Description	-

Variable	Maximum water temperature level 2 active as a fault
Address	[961.11]
Type	Bitfield 16 bits
Description	-

Variable	Fail to close bus breaker active as a fault
Address	[961.12]
Type	Bitfield 16 bits
Description	-

Variable	Fail to open bus breaker active as a fault
Address	[961.13]
Type	Bitfield 16 bits
Description	-

Variable	Bus breaker open suddently active as a fault
Address	[961.14]
Type	Bitfield 16 bits
Description	-

Variable	Bus breaker close suddently active as a fault
Address	[961.15]
Type	Bitfield 16 bits
Description	-

Variable	J1939: DM1 protect active as an alarm
Address	[968.12]
Type	Bitfield 16 bits
Description	-

Variable	J1939: DM1 amber active as an alarm
Address	[968.13]
Type	Bitfield 16 bits
Description	-

Variable	J1939: DM1 red active as an alarm
Address	[968.14]
Type	Bitfield 16 bits
Description	-

Variable	J1939: DM1 malfunction active as an alarm
Address	[968.15]
Type	Bitfield 16 bits
Description	-

Variable	J1939: DM1 protect active as a fault
Address	[969.12]
Type	Bitfield 16 bits
Description	-

Variable	J1939: DM1 amber active as a fault
Address	[969.13]
Type	Bitfield 16 bits
Description	-

Variable	J1939: DM1 red active as a fault
Address	[969.14]
Type	Bitfield 16 bits
Description	-

Variable	J1939: DM1 malfunction active as a fault
Address	[969.15]
Type	Bitfield 16 bits
Description	-

Variable	Fail to synchronize active as an alarm
Address	[970.0]
Type	Bitfield 16 bits
Description	For Modbus reading

Variable	CAN1 controllers communication fault active as an alarm
Address	[970.2]
Type	Bitfield 16 bits
Description	-

Variable	Minimum/maximum analog measure 1 (level 1) active as an alarm
Address	[970.4]
Type	Bitfield 16 bits
Description	-

Variable	Minimum/maximum analog measure 1 (level 2) active as an alarm
Address	[970.5]
Type	Bitfield 16 bits
Description	-

Variable	Minimum/maximum analog measure 2 (level 1) active as an alarm
Address	[970.6]
Type	Bitfield 16 bits
Description	-

Variable	Minimum/maximum analog measure 2 (level 2) active as an alarm
Address	[970.7]
Type	Bitfield 16 bits
Description	-

Variable	Minimum/maximum analog measure 3 (level 1) active as an alarm
Address	[970.8]
Type	Bitfield 16 bits
Description	-

Variable	Minimum/maximum analog measure 3 (level 2) active as an alarm
Address	[970.9]
Type	Bitfield 16 bits
Description	-

Variable	Fail to stabilize speed active as an alarm
Address	[970.14]
Type	Bitfield 16 bits
Description	-

Variable	Fail to stabilize voltage active as an alarm
Address	[970.15]
Type	Bitfield 16 bits
Description	-

Variable	Fail to synchronize active as a fault
Address	[971.0]
Type	Bitfield 16 bits
Description	For Modbus reading

Variable	CAN1 controllers communication fault active as a fault
Address	[971.2]
Type	Bitfield 16 bits
Description	-

Variable	Minimum/maximum analog measure 1 (level 1) active as a fault
Address	[971.4]
Type	Bitfield 16 bits
Description	-

Variable	Minimum/maximum analog measure 1 (level 2) active as a fault
Address	[971.5]
Type	Bitfield 16 bits
Description	-

Variable	Minimum/maximum analog measure 2 (level 1) active as a fault
Address	[971.6]
Type	Bitfield 16 bits
Description	-

Variable	Minimum/maximum analog measure 2 (level 2) active as a fault
Address	[971.7]
Type	Bitfield 16 bits
Description	-

Variable	Minimum/maximum analog measure 3 (level 1) active as a fault
Address	[971.8]
Type	Bitfield 16 bits
Description	-

Variable	Minimum/maximum analog measure 3 (level 2) active as a fault
Address	[971.9]
Type	Bitfield 16 bits
Description	-

Variable	Fail to close generator breaker active as a fault
Address	[971.10]
Type	Bitfield 16 bits
Description	-

Variable	Fail to open generator breaker active as a fault
Address	[971.11]
Type	Bitfield 16 bits
Description	-

Variable	Generator breaker open suddently active as a fault
Address	[971.12]
Type	Bitfield 16 bits
Description	-

Variable	Generator breaker close suddently active as a fault
Address	[971.13]
Type	Bitfield 16 bits
Description	-

Variable	CANopen error active as an alarm
Address	[972.0]
Type	Bitfield 16 bits
Description	For Modbus reading

Variable	J1939 error active as an alarm
Address	[972.1]
Type	Bitfield 16 bits
Description	-

Variable	Overload microcontroler active as an alarm
Address	[972.4]
Type	Bitfield 16 bits
Description	-

Variable	Maintenance hours n°1 active as an alarm
Address	[972.5]
Type	Bitfield 16 bits
Description	-

Variable	Maintenance hours n°2 active as an alarm
Address	[972.6]
Type	Bitfield 16 bits
Description	-

Variable	Maintenance hours n°3 active as an alarm
Address	[972.7]
Type	Bitfield 16 bits
Description	-

Variable	Maintenance hours n°4 active as an alarm
Address	[972.8]
Type	Bitfield 16 bits
Description	-

Variable	Maintenance hours n°5 active as an alarm
Address	[972.9]
Type	Bitfield 16 bits
Description	-

Variable	Maintenance days n°1 active as an alarm
Address	[972.10]
Type	Bitfield 16 bits
Description	-

Variable	Maintenance days n°2 active as an alarm
Address	[972.11]
Type	Bitfield 16 bits
Description	-

Variable	Maintenance days n°3 active as an alarm
Address	[972.12]
Type	Bitfield 16 bits
Description	-

Variable	Maintenance days n°4 active as an alarm
Address	[972.13]
Type	Bitfield 16 bits
Description	-

Variable	Maintenance days n°5 active as an alarm
Address	[972.14]
Type	Bitfield 16 bits
Description	-

Variable	Oil pressure fault active as a fault
Address	[973.0]
Type	Bitfield 16 bits
Description	For Modbus reading

Variable	Coolant temperature fault active as a fault
Address	[973.1]
Type	Bitfield 16 bits
Description	-

Variable	Emergency stop active as a fault
Address	[973.2]
Type	Bitfield 16 bits
Description	-

Variable	Fail to stop active as a fault
Address	[973.3]
Type	Bitfield 16 bits
Description	-

Variable	Generator not ready active as a fault
Address	[973.4]
Type	Bitfield 16 bits
Description	-

Variable	Fail to start active as a fault
Address	[973.5]
Type	Bitfield 16 bits
Description	-

Variable	Generator unexpected stop active as a fault
Address	[973.6]
Type	Bitfield 16 bits
Description	-

Variable	CANopen error active as a fault
Address	[973.8]
Type	Bitfield 16 bits
Description	-

Variable	J1939 error active as a fault
Address	[973.9]
Type	Bitfield 16 bits
Description	-

Variable	CAN1 missing MASTER active as an alarm
Address	[974.0]
Type	Bitfield 16 bits
Description	For Modbus reading

Variable	Bus measure error active as an alarm
Address	[974.1]
Type	Bitfield 16 bits
Description	-

Variable	Generator voltage unbalance level 1 active as an alarm
Address	[974.2]
Type	Bitfield 16 bits
Description	-

Variable	Generator voltage unbalance level 2 active as an alarm
Address	[974.3]
Type	Bitfield 16 bits
Description	-

Variable	Generator current unbalance level 1 active as an alarm
Address	[974.4]
Type	Bitfield 16 bits
Description	-

Variable	Generator current unbalance level 2 active as an alarm
Address	[974.5]
Type	Bitfield 16 bits
Description	-

Variable	Bus voltage unbalance level 1 active as an alarm
Address	[974.6]
Type	Bitfield 16 bits
Description	-

Variable	Bus voltage unbalance level 2 active as an alarm
Address	[974.7]
Type	Bitfield 16 bits
Description	-

Variable	Overflow in equation active as an alarm
Address	[974.8]
Type	Bitfield 16 bits
Description	-

Variable	Minimum speed output active as an alarm
Address	[974.9]
Type	Bitfield 16 bits
Description	-

Variable	Maximum speed output active as an alarm
Address	[974.10]
Type	Bitfield 16 bits
Description	-

Variable	Minimum AVR output active as an alarm
Address	[974.11]
Type	Bitfield 16 bits
Description	-

Variable	Maximum AVR output active as an alarm
Address	[974.12]
Type	Bitfield 16 bits
Description	-

Variable	CAN1 missing PRIME active as an alarm
Address	[974.13]
Type	Bitfield 16 bits
Description	-

Variable	CAN1 mismatch protocol version alarm active
Address	[974.15]
Type	Bitfield 16 bits
Description	-

Variable	CAN1 missing MASTER active as a fault
Address	[975.0]
Type	Bitfield 16 bits
Description	For Modbus reading

Variable	Generator voltage unbalance level 1 active as a fault
Address	[975.2]
Type	Bitfield 16 bits
Description	-

Variable	Generator voltage unbalance level 2 active as a fault
Address	[975.3]
Type	Bitfield 16 bits
Description	-

Variable	Generator current unbalance level 1 active as a fault
Address	[975.4]
Type	Bitfield 16 bits
Description	-

Variable	Generator current unbalance level 2 active as a fault
Address	[975.5]
Type	Bitfield 16 bits
Description	-

Variable	Bus voltage unbalance level 1 active as a fault
Address	[975.6]
Type	Bitfield 16 bits
Description	-

Variable	Bus voltage unbalance level 2 active as a fault
Address	[975.7]
Type	Bitfield 16 bits
Description	-

Variable	Minimum speed output active as a fault
Address	[975.9]
Type	Bitfield 16 bits
Description	-

Variable	Maximum speed output active as a fault
Address	[975.10]
Type	Bitfield 16 bits
Description	-

Variable	Minimum AVR output active as a fault
Address	[975.11]
Type	Bitfield 16 bits
Description	-

Variable	Maximum AVR output active as a fault
Address	[975.12]
Type	Bitfield 16 bits
Description	-

Variable	CAN1 missing PRIME active as a fault
Address	[975.13]
Type	Bitfield 16 bits
Description	-

Statuses

Variable	Fault
Address	[952.0]
Type	Bitfield 16 bits
Description	-

Variable	Bus voltage
Address	[952.1]
Type	Bitfield 16 bits
Description	-

Variable	AUTO
Address	[952.2]
Type	Bitfield 16 bits
Description	-

Variable	MAN
Address	[952.3]
Type	Bitfield 16 bits
Description	-

Variable	TEST
Address	[952.5]
Type	Bitfield 16 bits
Description	-

Variable	Generator breaker
Address	[952.6]
Type	Bitfield 16 bits
Description	-

Variable	Alarm
Address	[952.7]
Type	Bitfield 16 bits
Description	-

Variable	Generator voltage
Address	[952.8]
Type	Bitfield 16 bits
Description	-

Remote buttons

Variable	Shift button
Address	[951.0]
Type	Bitfield 16 bits
Description	Active (1) if the button is pressed. Inactive (0) otherwise.

Variable	Right arrow button
Address	[951.1]
Type	Bitfield 16 bits
Description	Active (1) if the button is pressed. Inactive (0) otherwise.

Variable	Down arrow button
Address	[951.2]
Type	Bitfield 16 bits
Description	Active (1) if the button is pressed. Inactive (0) otherwise.

Variable	Left arrow button
Address	[951.3]
Type	Bitfield 16 bits
Description	Active (1) if the button is pressed. Inactive (0) otherwise.

Variable	Up arrow button
Address	[951.4]
Type	Bitfield 16 bits
Description	Active (1) if the button is pressed. Inactive (0) otherwise.

Variable	Enter button
Address	[951.5]
Type	Bitfield 16 bits
Description	Active (1) if the button is pressed. Inactive (0) otherwise.

Variable	Esc button
Address	[951.6]
Type	Bitfield 16 bits
Description	Active (1) if the button is pressed. Inactive (0) otherwise.

Variable	Fault/Alarm/info button
Address	[951.7]
Type	Bitfield 16 bits
Description	Active (1) if the button is pressed. Inactive (0) otherwise.

Variable	Generator breaker button
Address	[951.9]
Type	Bitfield 16 bits
Description	Active (1) if the button is pressed. Inactive (0) otherwise.

Variable	Stop button
Address	[951.10]
Type	Bitfield 16 bits
Description	Active (1) if the button is pressed. Inactive (0) otherwise.

Variable	Start button
Address	[951.11]
Type	Bitfield 16 bits
Description	Active (1) if the button is pressed. Inactive (0) otherwise.

Variable	Man button
Address	[951.12]
Type	Bitfield 16 bits
Description	Active (1) if the button is pressed. Inactive (0) otherwise.

Variable	Test button
Address	[951.13]
Type	Bitfield 16 bits
Description	Active (1) if the button is pressed. Inactive (0) otherwise.

Variable	Auto button
Address	[951.14]
Type	Bitfield 16 bits
Description	Active (1) if the button is pressed. Inactive (0) otherwise.

Variable	Shift button inhibition
Address	[8102.0]
Type	Bitfield 16 bits
Description	Allows to disable (1) or enable (0) the button

Variable	Right arrow button inhibition
Address	[8102.1]
Type	Bitfield 16 bits
Description	Allows to disable (1) or enable (0) the button

Variable	Down arrow button inhibition
Address	[8102.2]
Type	Bitfield 16 bits
Description	Allows to disable (1) or enable (0) the button

Variable	Left arrow button inhibition
Address	[8102.3]
Type	Bitfield 16 bits
Description	Allows to disable (1) or enable (0) the button

Variable	Up arrow button inhibition
Address	[8102.4]
Type	Bitfield 16 bits
Description	Allows to disable (1) or enable (0) the button

Variable	Enter button inhibition
Address	[8102.5]
Type	Bitfield 16 bits
Description	Allows to disable (1) or enable (0) the button

Variable	Esc button inhibition
Address	[8102.6]
Type	Bitfield 16 bits
Description	Allows to disable (1) or enable (0) the button

Variable	Fault/Alarm/info button inhibition
Address	[8102.7]
Type	Bitfield 16 bits
Description	Allows to disable (1) or enable (0) the button

Variable	Gen breaker button inhibition
Address	[8102.9]
Type	Bitfield 16 bits
Description	Allows to disable (1) or enable (0) the button

Variable	Stop button inhibition
Address	[8102.10]
Type	Bitfield 16 bits
Description	Allows to disable (1) or enable (0) the button

Variable	Start button inhibition
Address	[8102.11]
Type	Bitfield 16 bits
Description	Allows to disable (1) or enable (0) the button

Variable	Man button inhibition
Address	[8102.12]
Type	Bitfield 16 bits
Description	Allows to disable (1) or enable (0) the button

Variable	Test button inhibition
Address	[8102.13]
Type	Bitfield 16 bits
Description	Allows to disable (1) or enable (0) the button

Variable	Auto button inhibition
Address	[8102.14]
Type	Bitfield 16 bits
Description	Allows to disable (1) or enable (0) the button

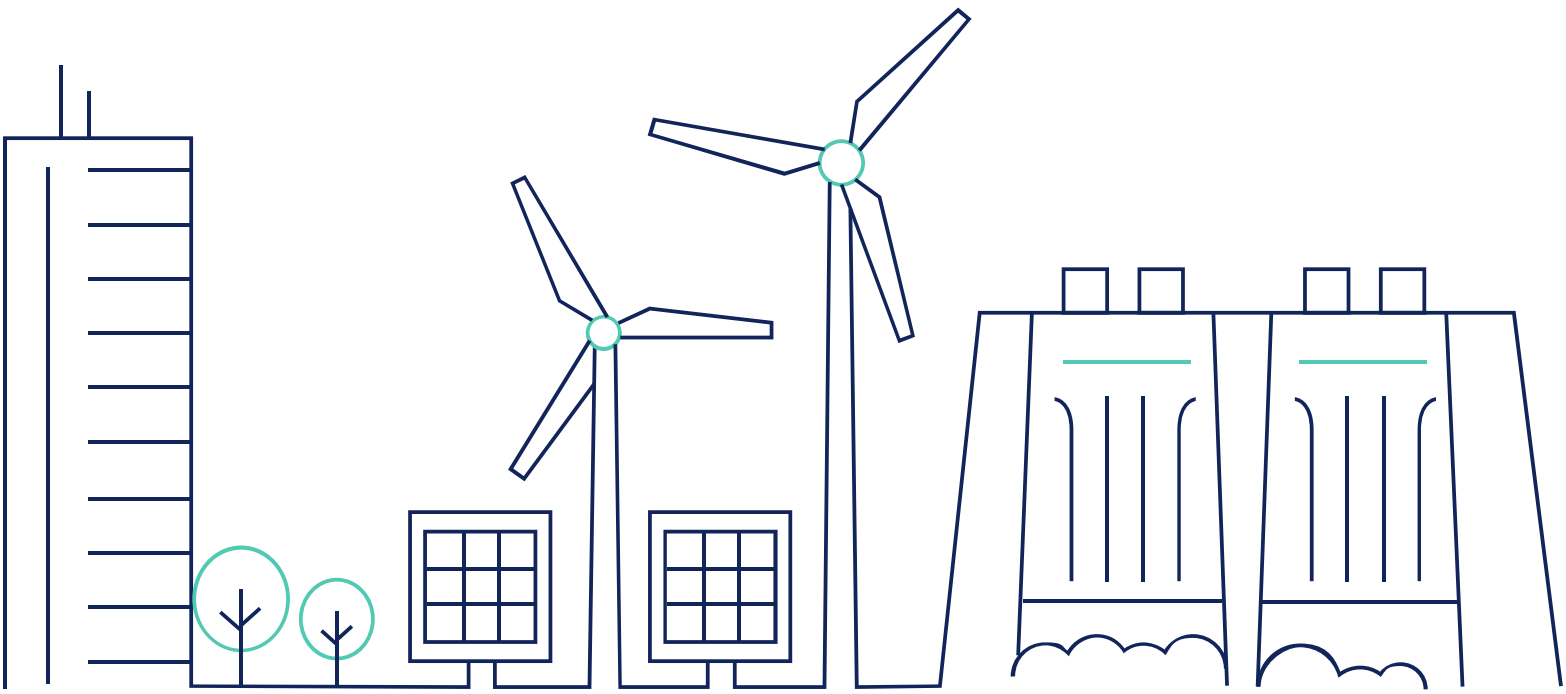
To discover our other products, please visit our website: www.cretechnology.com

130 Allée Charles-Victor Naudin, Sophia Antipolis, 06410 Biot, France

+33 (0)4 92 38 86 82 / +33 (0)4 92 38 86 86

info@cretechnology.com / support@cretechnology.com

Business Hours:
Mon–Thu: UTC+1 (8:30 – 12:30 / 14:00 – 18:00) — Fri: UTC+1 (8:30 – 12:30 / 14:00 – 16:00)

Follow CRE TECHNOLOGY on:

COPYRIGHT © CRE TECHNOLOGY. ALL RIGHTS RESERVED