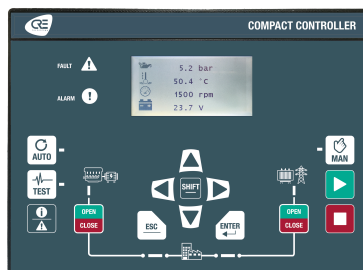




MODBUS TABLE

GENSYS COMPACT MAINS



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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** device or the **i4Gen Suite** 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.

MODBUS TABLE

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)** page, you can tick checkboxes 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]	<i>Generator KWh</i>
[82] [81]	<i>Generator KVARh</i>
[84] [83]	<i>Number of hours generator running</i>

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

VARIABLES

COMMANDS

Variable	kW Setpoint
Address	[361]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
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
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
Min value	0
Max value	1
Description	Starter n°1 - cranking output.

MODBUS TABLE

Variable	Starter n°2
Address	[4653]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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.

MODBUS TABLE

Variable	Horn
Address	[4663]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
Min value	0
Max value	1
Description	Command to close the breaker. Output signal (pulse or continue) will depend on configuration in Breaker settings.

MODBUS TABLE

Variable	Mains breaker close
Address	[4676]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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	Mains breaker open
Address	[4678]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	1
Description	Command to open the breaker. Output signal (pulse or continue) will depend on configuration in Breaker settings.

MODBUS TABLE

Variable	Excitation command
Address	[4680]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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.

MODBUS TABLE

Variable	Damper
Address	[4687]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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	1st non essential trip
Address	[4689]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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	[4690]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	1
Description	In case Load Shedding function is used: Load 2 to be shed after load 1

MODBUS TABLE

Variable	3rd non essential trip
Address	[4691]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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	[4692]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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	[4693]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	1
Description	In case Load Shedding function is used: Load 5 to be shed after load 4

Variable	Increase speed by pulse
Address	[4699]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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"

MODBUS TABLE

Variable	Decrease speed by pulse
Address	[4700]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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"

MODBUS TABLE

Variable	Idle speed
Address	[4704]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
Min value	0
Max value	1
Description	Battery boost digital output. Activated with 'Boost battery' function (configuration/protection).

MODBUS TABLE

Variable	Faults reset
Address	[4737]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	1
Description	Active when a Fault RESET is requested on controller.

GENERATOR

Variable	Generator V1
Address	[50]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
Min value	0
Max value	65535
Description	Generator voltage neutral to phase 3

MODBUS TABLE

Variable	Generator U31 (%)
Address	[53]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	65535
Description	Generator voltage phase 1 to phase 3

MODBUS TABLE

Variable	Generator U23
Address	[57]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	65535
Description	Generator current I2

MODBUS TABLE

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

Variable	Generator $\cos(\varphi_1)$
Address	[69]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Min value	-100
Max value	100
Description	Generator PF 1

Variable	Generator $\cos(\varphi_2)$
Address	[70]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Min value	-100
Max value	100
Description	Generator PF 2

MODBUS TABLE

Variable	Generator cos(φ_3)
Address	[71]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Min value	-100
Max value	100
Description	Generator PF 3

Variable	Generator cos(φ)
Address	[74]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
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
Min value	0
Max value	10000
Description	Generator frequency

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

MODBUS TABLE

Variable	Generator KWh
Address	[79]
Scale Factor	0
Type	Unsigned integer 32 bits
Read/Write	Read
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
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
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
Min value	0
Max value	59
Description	Generator run minutes

MODBUS TABLE

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

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

Variable	Override Minutes Run
Address	[98]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	59
Description	Running minutes in override mode

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

MODBUS TABLE

Variable	Freq. diff.
Address	[301]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
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
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
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
Min value	-2000
Max value	2000
Description	Generator active power (%)

MODBUS TABLE

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

Variable	Generator P1
Address	[363]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Min value	-32768
Max value	32767
Description	Generator kW 1

Variable	Generator P2
Address	[364]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Min value	-32768
Max value	32767
Description	Generator kW 2

Variable	Generator P3
Address	[365]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Min value	-32768
Max value	32767
Description	Generator kW 3

MODBUS TABLE

Variable	Generator Q1
Address	[366]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Min value	-32768
Max value	32767
Description	Generator kVAR 1

Variable	Generator Q2
Address	[367]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Min value	-32768
Max value	32767
Description	Generator kVAR 2

Variable	Generator Q3
Address	[368]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Min value	-32768
Max value	32767
Description	Generator kVAR 3

Variable	Generator total P
Address	[369]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Min value	-32768
Max value	32767
Description	Generator global kW

MODBUS TABLE

Variable	Generator total Q
Address	[370]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Min value	-32768
Max value	32767
Description	Generator global KVAR

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

MODBUS TABLE

Variable	Generator breaker open suddenly
Address	[4156]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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

MODBUS TABLE

Variable	Fail to stabilize voltage
Address	[4478]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
Min value	0
Max value	1
Description	Status report: Active when start sequence is successful and generator at its nominal frequency and voltage. The variable remains active until the engine is requested to stopped.

MODBUS TABLE

Variable	Generator ready and breaker closed
Address	[4672]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
Min value	0
Max value	1
Description	Status report: Activated if generator is stopped (speed <10rpm)

MAINS

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

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

MODBUS TABLE

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

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

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

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

MODBUS TABLE

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

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

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

Variable	Mains I1
Address	[109]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	65535
Description	Bus/Mains current I1

MODBUS TABLE

Variable	Mains cos(φ)
Address	[114]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
Min value	-100
Max value	100
Description	Bus/Mains global PF

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

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

Variable	Mains kWh
Address	[120]
Scale Factor	0
Type	Unsigned integer 32 bits
Read/Write	Read
Min value	0
Max value	4294967295
Description	Mains kWh (lower bytes)

MODBUS TABLE

Variable	Mains kVARh energy
Address	[122]
Scale Factor	0
Type	Unsigned integer 32 bits
Read/Write	Read
Min value	0
Max value	4294967295
Description	Mains kVARH (lower bytes)

Variable	Mains total P
Address	[140]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Min value	-32768
Max value	32767
Description	Bus/Mains global kW

Variable	Mains total Q
Address	[141]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
Min value	-32768
Max value	32767
Description	Bus/Mains global kVAR

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
Min value	0
Max value	3
Description	Rotophase : Phi sequence of the busbar polarity (0 = indirect, 1=direct, 2=Error, 3=No Signal)

MODBUS TABLE

Variable	Fail to close mains breaker
Address	[4157]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	1
Description	Fault report: The automated system tried to close the circuit breaker without success

Variable	Fail to open mains breaker
Address	[4158]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	1
Description	Fault report: The automated system tried to open the circuit breaker without success

Variable	Mains breaker open suddenly
Address	[4159]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	1
Description	Fault report: The circuit breaker has opened without any request for opening from the automated system

MODBUS TABLE

Variable	Mains breaker close suddenly
Address	[4171]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	1
Description	Fault report: The circuit breaker has closed without any request for closing from the automated system

Variable	Mains breaker state
Address	[4651]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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	Bus/Mains voltage presence
Address	[4703]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	1
Description	Status report: Activated when mains is present, and valid (i.e after mains back delay [2009] occurred) and no mains electrical fault activated.

ENGINE

Variable	Oil pressure
Address	[200]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
Min value	0
Max value	10000
Description	Speed

MODBUS TABLE

Variable	GE Speed (%)
Address	[203]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	Fault report: The automated system tried to start the engine without success

MODBUS TABLE

Variable	Timer Ignition ON
Address	[4480]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	Protection Lamp status (PGN : 65226 / SPN: 987)

MODBUS TABLE

Variable	Amber Warning Lamp
Address	[659]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	1
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
Min value	0
Max value	1
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
Min value	0
Max value	1
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
Min value	0
Max value	65535
Description	Engine speed

MODBUS TABLE

Variable	Oil pressure
Address	[680]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	65535
Description	Engine Percent Load At Current Speed

MODBUS TABLE

Variable	Driver's Demand Engine - Percent Torque
Address	[684]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	65535
Description	Engine Intake Manifold #1 Absolute Pressure

MODBUS TABLE

Variable	Engine Exhaust Manifold Bank 2 Temperature 1
Address	[688]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	65535
Description	Auxiliary Pressure #1

MODBUS TABLE

Variable	Auxiliary Pressure #2
Address	[692]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	-32768
Max value	32767
Description	Engine ECU Temperature

MODBUS TABLE

Variable	Engine Alternator Winding 1 Temperature
Address	[696]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	4294967295
Description	Trip Fuel (Gaseous)

MODBUS TABLE

Variable	Total Fuel Used (Gaseous)
Address	[701]
Scale Factor	0
Type	Unsigned integer 32 bits
Read/Write	Read
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
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
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
Min value	0
Max value	65535
Description	Active Diagnostic Trouble Code Count

MODBUS TABLE

Variable	Engine Fuel 1 Injector Metering Rail 1 Pressure
Address	[706]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	4294967295
Description	Engine Total Hours of Operation

MODBUS TABLE

Variable	Engine Trip Fuel
Address	[711]
Scale Factor	0
Type	Unsigned integer 32 bits
Read/Write	Read
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
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
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
Min value	-32768
Max value	32767
Description	Engine Oil Temperature 1

MODBUS TABLE

Variable	Engine Turbocharger 1 Oil Temperature
Address	[717]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	65535
Description	Engine Extended Crankcase Blow-by Pressure

MODBUS TABLE

Variable	Engine Oil Level
Address	[721]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	65535
Description	Engine Coolant Level 1

MODBUS TABLE

Variable	Engine Fuel Rate
Address	[725]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	-32768
Max value	32767
Description	Ambient Air Temperature

MODBUS TABLE

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

Variable	Aftertreatment 1 Diesel Particulate Filter Intake Pressure (use SPN 3609)
Address	[730]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
Min value	-32768
Max value	32767
Description	Engine Intake Manifold 1 Temperature

MODBUS TABLE

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

MODBUS TABLE

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

MODBUS TABLE

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

MODBUS TABLE

Variable	Accelerator Pedal 2 Position
Address	[756]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
Min value	-32768
Max value	32767
Description	Generator Governing Bias

Variable	SCR System Cleaning Lamp Command
Address	[759]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	65535
Description	SCR System Cleaning Lamp Command

MODBUS TABLE

Variable	SCR System Cleaning Status
Address	[760]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	65535
Description	SCR System Cleaning Forced Status

MODBUS TABLE

Variable	Aftertreatment 1 SCR Intake Temperature
Address	[764]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	65535
Description	Aftertreatment 1 Diesel Particulate Filter Soot Load Percent

MODBUS TABLE

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

Variable	Aftertreatment 1 Diesel Particulate Filter Time Since Last Active Regeneration
Address	[769]
Scale Factor	0
Type	Unsigned integer 32 bits
Read/Write	Read
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 Regeneration Threshold
Address	[771]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
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
Min value	0
Max value	65535
Description	Diesel Particulate Filter Lamp Command

MODBUS TABLE

Variable	Aftertreatment Diesel Particulate Filter Passive Regeneration Status
Address	[773]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	65535
Description	Aftertreatment Diesel Particulate Filter Passive Regeneration Status

Variable	Aftertreatment Diesel Particulate Filter Active Regeneration Status
Address	[774]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
Min value	0
Max value	65535
Description	Diesel Particulate Filter Active Regeneration Inhibited Status

MODBUS TABLE

Variable	Diesel Particulate Filter Active Regeneration Inhibited Due to Inhibit Switch
Address	[777]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
Min value	0
Max value	65535
Description	Exhaust System High Temperature Lamp Command

Variable	Aftertreatment 1 Diesel Particulate Filter Conditions Not Met for Active Regeneration
Address	[779]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
Min value	0
Max value	65535
Description	Aftertreatment 1 Diesel Particulate Filter Intake Pressure

MODBUS TABLE

Variable	Engine Derate Request
Address	[781]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	-32768
Max value	32767
Description	SLI Battery 1 Temperature

MODBUS TABLE

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

MODBUS TABLE

Variable	Aftertreatment SCR Operator Inducement Severity
Address	[789]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	65535
Description	Engine Auxiliary Coolant Pressure

MODBUS TABLE

Variable	Engine Auxiliary Coolant Temperature
Address	[793]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
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
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
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
Min value	-32768
Max value	32767
Description	Engine Turbocharger 1 Compressor Intake Pressure

MODBUS TABLE

Variable	Engine Turbocharger 2 Compressor Intake Pressure
Address	[1150]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read
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
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
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
Min value	-32768
Max value	32767
Description	Engine Exhaust Gas Port 19 Temperature

MODBUS TABLE

Variable	Engine Exhaust Gas Port 20 Temperature
Address	[1154]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
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
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
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
Min value	-32768
Max value	32767
Description	Engine Exhaust Gas Port 15 Temperature

MODBUS TABLE

Variable	Engine Exhaust Gas Port 16 Temperature
Address	[1158]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
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
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
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
Min value	-32768
Max value	32767
Description	Engine Exhaust Gas Port 11 Temperature

MODBUS TABLE

Variable	Engine Exhaust Gas Port 12 Temperature
Address	[1162]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
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
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
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
Min value	-32768
Max value	32767
Description	Engine Exhaust Gas Port 7 Temperature

MODBUS TABLE

Variable	Engine Exhaust Gas Port 8 Temperature
Address	[1166]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
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
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
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
Min value	-32768
Max value	32767
Description	Engine Exhaust Gas Port 3 Temperature

MODBUS TABLE

Variable	Engine Exhaust Gas Port 4 Temperature
Address	[1170]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	65535
Description	Engine Fuel 1 Injector Timing Rail 1 Pressure

MODBUS TABLE

Variable	Engine Wait to Start Lamp
Address	[1174]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	65535
Description	Engine Charge Air Cooler Thermostat Opening

MODBUS TABLE

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

MODBUS TABLE

Variable	MDEC module is alive
Address	[1200]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	65535
Description	P-Lube Oil - From MTU MDEC module

MODBUS TABLE

Variable	P-Fuel
Address	[1204]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	-32768
Max value	32767
Description	T-Coolant - From MTU MDEC module

MODBUS TABLE

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

MODBUS TABLE

Variable	Actual Failure Codes
Address	[1212]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
Min value	0
Max value	1
Description	Combined Alarm Red - From MTU MDEC module

INPUTS/OUTPUTS

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

MODBUS TABLE

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

Variable	Analog 3 (Customisable)
Address	[152]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read
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
Min value	0
Max value	500
Description	Battery voltage measure

MODBUS TABLE

Variable	Input 1 (Customisable)
Address	[250]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	1
Description	<p>Digital input n°1 of the product.</p> <p>Select a normally open polarity if the input is connected to 0V when the input should be considered active.</p> <p>Select a normally closed polarity if the input is connected to 0V when the input must be considered inactive.</p> <p>The validity indicates when the digital input should be taken into account.</p> <p>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.</p> <p>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.</p>

Variable	Input 2 (Customisable)
Address	[251]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	1
Description	<p>Digital input n°2 of the product.</p> <p>Select a normally open polarity if the input is connected to 0V when the input should be considered active.</p> <p>Select a normally closed polarity if the input is connected to 0V when the input must be considered inactive.</p> <p>The validity indicates when the digital input should be taken into account.</p> <p>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.</p> <p>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.</p>

MODBUS TABLE

Variable	Input 3 (Customisable)
Address	[252]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	1
Description	<p>Digital input n°3 of the product.</p> <p>Select a normally open polarity if the input is connected to 0V when the input should be considered active.</p> <p>Select a normally closed polarity if the input is connected to 0V when the input must be considered inactive.</p> <p>The validity indicates when the digital input should be taken into account.</p> <p>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.</p> <p>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.</p>

Variable	Input 4 (Customisable)
Address	[253]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	1
Description	<p>Digital input n°4 of the product.</p> <p>Select a normally open polarity if the input is connected to 0V when the input should be considered active.</p> <p>Select a normally closed polarity if the input is connected to 0V when the input must be considered inactive.</p> <p>The validity indicates when the digital input should be taken into account.</p> <p>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.</p> <p>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.</p>

MODBUS TABLE

Variable	Input 5 (Customisable)
Address	[254]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	1
Description	<p>Digital input n°5 of the product.</p> <p>Select a normally open polarity if the input is connected to 0V when the input should be considered active.</p> <p>Select a normally closed polarity if the input is connected to 0V when the input must be considered inactive.</p> <p>The validity indicates when the digital input should be taken into account.</p> <p>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.</p> <p>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.</p>

Variable	Input 6 (Customisable)
Address	[255]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	1
Description	<p>Digital input n°6 of the product.</p> <p>Select a normally open polarity if the input is connected to 0V when the input should be considered active.</p> <p>Select a normally closed polarity if the input is connected to 0V when the input must be considered inactive.</p> <p>The validity indicates when the digital input should be taken into account.</p> <p>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.</p> <p>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.</p>

MODBUS TABLE

Variable	Input 7 (Customisable)
Address	[256]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	1
Description	<p>Digital input n°7 of the product.</p> <p>Select a normally open polarity if the input is connected to 0V when the input should be considered active.</p> <p>Select a normally closed polarity if the input is connected to 0V when the input must be considered inactive.</p> <p>The validity indicates when the digital input should be taken into account.</p> <p>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.</p> <p>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.</p>

Variable	Input 8 (Customisable)
Address	[257]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	1
Description	<p>Digital input n°8 of the product.</p> <p>Select a normally open polarity if the input is connected to 0V when the input should be considered active.</p> <p>Select a normally closed polarity if the input is connected to 0V when the input must be considered inactive.</p> <p>The validity indicates when the digital input should be taken into account.</p> <p>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.</p> <p>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.</p>

MODBUS TABLE

Variable	Input 9 (Customisable)
Address	[258]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	1
Description	<p>Digital input n°9 of the product.</p> <p>Select a normally open polarity if the input is connected to 0V when the input should be considered active.</p> <p>Select a normally closed polarity if the input is connected to 0V when the input must be considered inactive.</p> <p>The validity indicates when the digital input should be taken into account.</p> <p>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.</p> <p>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.</p>

Variable	Analog 1 (Customisable)
Address	[259]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
Min value	0
Max value	1
Description	Digital input 11 (Analog2 set as Digital input)

MODBUS TABLE

Variable	Analog 3 (Customisable)
Address	[261]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	Real time displayed status of Digital Output 3

MODBUS TABLE

Variable	Output 4 (Customisable)
Address	[4353]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	Real time displayed status of Relay Output 1

MODBUS TABLE

Variable	Relay 2 (Customisable)
Address	[4357]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital Input 1

MODBUS TABLE

Variable	CANopen DI 2 (Customisable)
Address	[801]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital Input 5

MODBUS TABLE

Variable	CANopen DI 6 (Customisable)
Address	[805]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital Input 9

MODBUS TABLE

Variable	CANopen DI 10 (Customisable)
Address	[809]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital Input 13

MODBUS TABLE

Variable	CANopen DI 14 (Customisable)
Address	[813]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital Input 17

MODBUS TABLE

Variable	CANopen DI 18 (Customisable)
Address	[817]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital Input 21

MODBUS TABLE

Variable	CANopen DI 22 (Customisable)
Address	[821]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital Input 25

MODBUS TABLE

Variable	CANopen DI 26 (Customisable)
Address	[825]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital Input 29

MODBUS TABLE

Variable	CANopen DI 30 (Customisable)
Address	[829]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	-32768
Max value	32767
Description	CANopen analog input 1

MODBUS TABLE

Variable	CANopen AI 2 (Customisable)
Address	[1051]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
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
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
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
Min value	-32768
Max value	32767
Description	CANopen analog input 5

MODBUS TABLE

Variable	CANopen AI 6 (Customisable)
Address	[1055]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
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
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
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
Min value	-32768
Max value	32767
Description	CANopen analog input 9

MODBUS TABLE

Variable	CANopen AI 10 (Customisable)
Address	[1059]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
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
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
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
Min value	-32768
Max value	32767
Description	CANopen analog input 13

MODBUS TABLE

Variable	CANopen AI 14 (Customisable)
Address	[1063]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital Input 33

MODBUS TABLE

Variable	CANopen DI 34 (Customisable)
Address	[1251]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital Input 37

MODBUS TABLE

Variable	CANopen DI 38 (Customisable)
Address	[1255]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital Input 41

MODBUS TABLE

Variable	CANopen DI 42 (Customisable)
Address	[1259]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital Input 45

MODBUS TABLE

Variable	CANopen DI 46 (Customisable)
Address	[1263]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital Input 49

MODBUS TABLE

Variable	CANopen DI 50 (Customisable)
Address	[1267]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital Input 53

MODBUS TABLE

Variable	CANopen DI 54 (Customisable)
Address	[1271]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital Input 57

MODBUS TABLE

Variable	CANopen DI 58 (Customisable)
Address	[1275]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital Input 61

MODBUS TABLE

Variable	CANopen DI 62 (Customisable)
Address	[1279]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital output 1

MODBUS TABLE

Variable	CANopen DO 2 (Customisable)
Address	[4752]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital output 5

MODBUS TABLE

Variable	CANopen DO 6 (Customisable)
Address	[4756]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital output 9

MODBUS TABLE

Variable	CANopen DO 10 (Customisable)
Address	[4760]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital output 13

MODBUS TABLE

Variable	CANopen DO 14 (Customisable)
Address	[4764]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital output 17

MODBUS TABLE

Variable	CANopen DO 18 (Customisable)
Address	[4768]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital output 21

MODBUS TABLE

Variable	CANopen DO 22 (Customisable)
Address	[4772]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital output 25

MODBUS TABLE

Variable	CANopen DO 26 (Customisable)
Address	[4776]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital output 29

MODBUS TABLE

Variable	CANopen DO 30 (Customisable)
Address	[4780]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital output 33

MODBUS TABLE

Variable	CANopen DO 34 (Customisable)
Address	[5101]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital output 37

MODBUS TABLE

Variable	CANopen DO 38 (Customisable)
Address	[5105]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital output 41

MODBUS TABLE

Variable	CANopen DO 42 (Customisable)
Address	[5109]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital output 45

MODBUS TABLE

Variable	CANopen DO 46 (Customisable)
Address	[5113]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital output 49

MODBUS TABLE

Variable	CANopen DO 50 (Customisable)
Address	[5117]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital output 53

MODBUS TABLE

Variable	CANopen DO 54 (Customisable)
Address	[5121]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital output 57

MODBUS TABLE

Variable	CANopen DO 58 (Customisable)
Address	[5125]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	CANopen digital output 61

MODBUS TABLE

Variable	CANopen DO 62 (Customisable)
Address	[5129]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	65535
Description	Number of starts (only information)

MODBUS TABLE

Variable	Meter 1 (h) (Customisable)
Address	[850]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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.

MODBUS TABLE

Variable	Meter 4 (h) (Customisable)
Address	[853]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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.

MODBUS TABLE

Variable	Meter 2 (d) (Customisable)
Address	[856]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	65535
Description	<p>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.</p>

Variable	Meter 3 (d) (Customisable)
Address	[857]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	65535
Description	<p>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.</p>

Variable	Meter 4 (d) (Customisable)
Address	[858]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	65535
Description	<p>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.</p>

MODBUS TABLE

Variable	Meter 5 (d) (Customisable)
Address	[859]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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	Change over timer
Address	[4013]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	65535
Description	Change over timer

Variable	Mains back timer
Address	[4313]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	65535
Description	Mains back timer

MODBUS TABLE

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

MODBUS TABLE

Variable	Speed stabilization timer
Address	[4465]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	65535
Description	Engine stop timer

MODBUS TABLE

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

GENERATOR PROTECTIONS

Variable	Fail to synchronize
Address	[4051]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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)

COMMUNICATION

Variable	J1939 Fault
Address	[650]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	1
Description	Communication with ECU cannot be established. Check ECU wiring and power supply.

MODBUS TABLE

Variable	CANopen fault
Address	[4750]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
Min value	1
Max value	31
Description	Day (RTC)

MODBUS TABLE

Variable	Month
Address	[12]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	1
Max value	12
Description	Month (RTC)

Variable	Year
Address	[13]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	99
Description	Year (RTC)

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

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

MODBUS TABLE

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

Variable	100ms
Address	[17]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
Min value	0
Max value	1
Description	Alarm activated when a microcontroller overload occurs

MODBUS TABLE

Variable	Generator state
Address	[4000]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	Overflow in equation

MODBUS TABLE

Variable	Easyflex error code
Address	[4214]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	Identical frequencies on both sides of the circuit breaker (OK = 1 or NOK = 0)

MODBUS TABLE

Variable	Phase match
Address	[309]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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.

MODBUS TABLE

Variable	Production request
Address	[4007]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
Min value	0
Max value	2
Description	Mode auto/manu/test (0=MANU/1=TEST/2=AUTO)

Variable	Generator electrical fault summary
Address	[4656]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	1
Description	Fault report: Active if at least one protection configured as a generator electrical fault is active.

MODBUS TABLE

Variable	Mains electrical fault summary
Address	[4657]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	1
Description	Fault report: Active if at least one protection configured as a mains electrical fault is active.

Variable	Alarms summary
Address	[4658]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
Min value	0
Max value	1
Description	Fault report: Active if at least one protection configured as Hard shut down is active.

MODBUS TABLE

Variable	Default LED
Address	[4664]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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
Min value	0
Max value	1
Description	Status report: Active if the Test mode LED on the front of the product is lit

MODBUS TABLE

Variable	Manu mode LED
Address	[4668]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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...)

MODBUS TABLE

Variable	Override ON (Fault is currently inhibited)
Address	[4708]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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	Mains failure summary
Address	[4731]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	1
Description	Active if at least one protection configured as Mains failure is activate.

Variable	Generator breaker LED
Address	[4734]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	1
Description	Status report: Active if the Generator breaker LED on the front of the product is lit

Variable	Mains breaker LED
Address	[4735]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	1
Description	Status report: Active if the Mains breaker LED on the front of the product is lit

MODBUS TABLE

Variable	Mains LED
Address	[4736]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	1
Description	Status report: Active if the Mains LED on the front of the product is lit (voltage presence on Mains)

HYSTERESIS

Variable	Hysteresis 1 output
Address	[4710]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	1
Description	Activation of analog Hysteresis function n°1, configuration of function is in Configuration/programming/Hysteresis

Variable	Hysteresis 2 output
Address	[4711]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	1
Description	Activation of analog Hysteresis function n°2, configuration of function is in Configuration/programming/Hysteresis

MODBUS TABLE

Variable	Hysteresis 3 output
Address	[4712]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
Min value	0
Max value	1
Description	Activation of analog Hysteresis function n°3, configuration of function is in Configuration/programming/Hysteresis

Variable	Hysteresis output activation on DI1
Address	[4713]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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.

MODBUS TABLE

Variable	Hysteresis output activation on DI3
Address	[4715]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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.

MODBUS TABLE

Variable	Hysteresis output activation on DI6
Address	[4718]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read
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
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
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	Type of application
Address	[2005]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: Change over 1: No break change over 2: Permanent
Description	<p>This parameter is used to select the mode of operation between the generator(s) and the mains. 3 values can be selected:</p> <ul style="list-style-type: none"> - Change over : Load transfer between the generator(s) and the mains without synchronization/paralleling. - No break change over : Load transfer between the generator(s) and the mains with synchronization/paralleling/progressive power transfer. - Permanent: Synchronization/paralleling to the mains permanently. This mode has to be selected to set a fixed power to the mains (Peak shaving) or to set a fixed power to the generator (Base load). Caution: In this mode of operation, the activation of the df/dt protection is strongly recommended to detect the loss of the mains during permanent paralleling.

Variable	Type of regulation
Address	[2006]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: Peak shaving 1: Base load GE
Description	<p>This parameter is used to select the type of consignment when the generator(s) is(are) permanently paralleled to the mains. 2 values can be selected:</p> <ul style="list-style-type: none"> - Peak shaving : Fixed active power on the mains, the active power of the generator(s) changes with the load. If the generator(s) reach(s) the high limit, the mains consignment will no longer be respected. - Base load : Fixed active power on the generator(s), the active power of the mains changes with the load.

MODBUS TABLE

Variable	PT ratio
Address	[2100]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	65535
Description	<p>This parameter allows you to set the ratio between the voltage present on the busbar and the voltage connected to the module.</p> <p>Example: Busbar voltage 20.000Vac / Voltage connected to the module 100 Vac: PT ratio value = $20.000/100 = 200$.</p> <p>This PT ratio can be calculated or is indicated on the measuring transformers.</p>

Variable	CT ratio
Address	[2101]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	65535
Description	<p>This parameter is used to set the ratio between the current on the busbar and the current connected to the module.</p> <p>Example: Busbar current 1000A / Current connected to the module 5A: CT ratio value = $1000/5 = 200$.</p> <p>This CT ratio can be calculated or is indicated on the measuring current transformers.</p>

Variable	Nominal voltage
Address	[2102]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	65535
Description	<p>This parameter is used to set the nominal voltage:</p> <ul style="list-style-type: none"> - Three-phase and two-phase: Enter a phase-to-phase voltage. - Single-phase: Enter a phase-to-neutral voltage. <p>All the protections based on the voltage as well as the control loops are calculated as a percentage of this value.</p> <p>For low voltage (400VAC, 440VAC, 480VAC, etc...) or high voltage (20.000VAC, 33.000VAC, etc...) applications, this variable must be adjusted.</p>

MODBUS TABLE

Variable	Single phase nominal current
Address	[2103]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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.

MODBUS TABLE

Variable	Base load Generator(s) kW setpoint
Address	[2107]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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	Nominal frequency
Address	[2153]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	10000
Description	This parameter is used to set the nominal frequency. All the protections based on the frequency as well as the control loops are calculated as a percentage of this value. For 50 or 60 Hz applications, this variable must be adjusted.

Variable	Speed output inversion
Address	[2212]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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.

MODBUS TABLE

Variable	Power factor setpoint (inductive)
Address	[2253]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	100
Description	This parameter is used to set the generator/power plant $\cos(\varphi)$ set point that will be applied when paralleling to the mains. The imposed $\cos(\varphi)$ is an inductive $\cos(\varphi)$.

Variable	AVR signal output inversion
Address	[2254]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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...)

MODBUS TABLE

Variable	Generator breaker control pulse length
Address	[2301]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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.

MODBUS TABLE

Variable	Voltage acceptance
Address	[2800]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	0
Max value	30
Description	Maximum phase difference between the voltages on either side of the circuit breaker to allow closing.

MODBUS TABLE

Variable	Fail to synchronize timer
Address	[2803]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 3: Alarm 4: Fault (soft shutdown)
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
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.

MODBUS TABLE

Variable	Number of closing attempts
Address	[2807]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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 disappeared. 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
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
Min value	-180
Max value	180
Description	Phase offset for synch. check relay (Ex: Dyn11)

MODBUS TABLE

Variable	Number of closing attempts
Address	[2814]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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 disappeared. If it isn't the case the module will try again until it has reached the number set in this variable

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

Variable	High kW active power threshold
Address	[2867]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	1000
Description	<p>This parameter allows you to define the maximum active power that the automatic system will impose on the generator when paralleled to the mains.</p> <p>In the case of a permanent mode with peak shaving, if the generator/power plant reaches the high limit, the mains will take the excess load and the peak shaving setpoint will not be respected.</p> <p>It is recommended to set a high limit between 90 and 100% of the nominal active power.</p>

MODBUS TABLE

Variable	Frequency Global Gain
Address	[2900]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	100
Description	<p>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.</p> <p>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.</p> <p>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.</p>

MODBUS TABLE

Variable	Frequency Proportional
Address	[2901]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	100
Description	<p>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.</p> <p>As a general rule :</p> <ul style="list-style-type: none"> - 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. <p>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.</p> <p>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.</p>

MODBUS TABLE

Variable	Frequency Integral
Address	[2902]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	100
Description	<p>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.</p> <p>As a general rule :</p> <ul style="list-style-type: none"> - 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. <p>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.</p> <p>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.</p>

MODBUS TABLE

Variable	Frequency Derivate
Address	[2903]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	100
Description	<p>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.</p> <p>As a general rule :</p> <ul style="list-style-type: none"> - 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. <p>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.</p> <p>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.</p>

MODBUS TABLE

Variable	Phase Global Gain
Address	[2904]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	100
Description	<p>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.</p> <p>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.</p> <p>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.</p>

MODBUS TABLE

Variable	Phase Proportional
Address	[2905]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	100
Description	<p>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.</p> <p>As a general rule :</p> <ul style="list-style-type: none"> - 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. <p>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.</p> <p>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.</p>

MODBUS TABLE

Variable	Phase Integral
Address	[2906]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	100
Description	<p>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.</p> <p>As a general rule :</p> <ul style="list-style-type: none"> - 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. <p>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.</p> <p>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.</p>

MODBUS TABLE

Variable	Phase Derivate
Address	[2907]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	100
Description	<p>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.</p> <p>As a general rule :</p> <ul style="list-style-type: none"> - 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. <p>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.</p> <p>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.</p>

MODBUS TABLE

Variable	kW/Freq Gain
Address	[2908]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	100
Description	<p>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.</p> <p>The kW regulation is active as soon as the genset(s) are paralleled to another source.</p> <p>The parameters of this regulation ensure simultaneously:</p> <ul style="list-style-type: none"> - 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.

MODBUS TABLE

Variable	kW/Freq Proportional
Address	[2909]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	100
Description	<p>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.</p> <p>As a general rule :</p> <ul style="list-style-type: none"> - 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. <p>The kW regulation is active as soon as the genset(s) are paralleled to another source.</p> <p>The parameters of this regulation ensure simultaneously:</p> <ul style="list-style-type: none"> - 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.

MODBUS TABLE

Variable	kW/Freq Integral
Address	[2910]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	100
Description	<p>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.</p> <p>As a general rule :</p> <ul style="list-style-type: none"> - 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. <p>The kW regulation is active as soon as the genset(s) are paralleled to another source.</p> <p>The parameters of this regulation ensure simultaneously:</p> <ul style="list-style-type: none"> - 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.

MODBUS TABLE

Variable	kW/Freq Derivative
Address	[2911]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	100
Description	<p>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.</p> <p>As a general rule :</p> <ul style="list-style-type: none"> - 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. <p>The kW regulation is active as soon as the genset(s) are paralleled to another source.</p> <p>The parameters of this regulation ensure simultaneously:</p> <ul style="list-style-type: none"> - 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
Min value	0
Max value	100
Description	<p>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.</p> <p>In most cases, it is recommended not to change the default value.</p>

MODBUS TABLE

Variable	Voltage Global Gain
Address	[2950]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	100
Description	<p>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.</p> <p>The voltage regulation is active during the whole synchronization phase of the generator(s).</p> <p>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.</p>

Variable	Voltage Proportional
Address	[2951]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	100
Description	<p>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.</p> <p>As a general rule :</p> <ul style="list-style-type: none"> - 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. <p>The voltage regulation is active during the whole synchronization phase of the generator(s).</p> <p>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.</p>

MODBUS TABLE

Variable	Voltage Integral
Address	[2952]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	100
Description	<p>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.</p> <p>As a general rule :</p> <ul style="list-style-type: none"> - 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. <p>The voltage regulation is active during the whole synchronization phase of the generator(s).</p> <p>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.</p>

MODBUS TABLE

Variable	Voltage Derivate
Address	[2953]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	100
Description	<p>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.</p> <p>As a general rule :</p> <ul style="list-style-type: none"> - 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. <p>The voltage regulation is active during the whole synchronization phase of the generator(s).</p> <p>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.</p>

Variable	kVAR/Voltage Gain
Address	[2954]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	100
Description	<p>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.</p> <p>The kVAR regulation is active as soon as the genset(s) are paralleled to another source.</p> <p>The parameters of this regulation ensure simultaneously:</p> <ul style="list-style-type: none"> - 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.

MODBUS TABLE

Variable	kVAR/Voltage Proportional
Address	[2955]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	100
Description	<p>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.</p> <p>As a general rule :</p> <ul style="list-style-type: none"> - 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. <p>The kVAR regulation is active as soon as the genset(s) are paralleled to another source.</p> <p>The parameters of this regulation ensure simultaneously:</p> <ul style="list-style-type: none"> - 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.

MODBUS TABLE

Variable	kVAR/Voltage Integral
Address	[2956]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	100
Description	<p>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.</p> <p>As a general rule :</p> <ul style="list-style-type: none"> - 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. <p>The kVAR regulation is active as soon as the genset(s) are paralleled to another source.</p> <p>The parameters of this regulation ensure simultaneously:</p> <ul style="list-style-type: none"> - 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.

MODBUS TABLE

Variable	kVAR/Voltage Derivate
Address	[2957]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	100
Description	<p>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.</p> <p>As a general rule :</p> <ul style="list-style-type: none"> - 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. <p>The kVAR regulation is active as soon as the genset(s) are paralleled to another source.</p> <p>The parameters of this regulation ensure simultaneously:</p> <ul style="list-style-type: none"> - 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
Min value	0
Max value	100
Description	<p>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.</p> <p>In most cases, it is recommended not to change the default value.</p>

MODBUS TABLE

Variable	Off load timer (Only for start with timer)
Address	[3478]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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.

MODBUS TABLE

Variable	Frequency pulse divider
Address	[3652]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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.

MAINS

Variable	PT ratio
Address	[2150]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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.

MODBUS TABLE

Variable	CT ratio
Address	[2151]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	65535
Description	<p>This parameter is used to set the ratio between the current on the busbar and the current connected to the module.</p> <p>Example: Busbar current 1000A / Current connected to the module 5A: CT ratio value = $1000/5 = 200$.</p> <p>This CT ratio can be calculated or is indicated on the measuring current transformers.</p>

Variable	Nominal voltage
Address	[2152]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	65535
Description	<p>This parameter is used to set the nominal voltage:</p> <ul style="list-style-type: none"> - Three-phase and two-phase: Enter a phase-to-phase voltage. - Single-phase: Enter a phase-to-neutral voltage. <p>All the protections based on the voltage are calculated as a percentage of this value.</p> <p>For low voltage (400VAC, 440VAC, 480VAC, etc...) or high voltage (20.000VAC, 33.000VAC, etc...) applications, this variable must be adjusted.</p>

Variable	Peak shaving kW setpoint
Address	[2154]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
Min value	-32768
Max value	32767
Description	<p>This parameter is used to set the active power setpoint of the mains when the product is configured in peak shaving mode.</p>

MODBUS TABLE

Variable	Mains kW measure type
Address	[2155]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: CT 1: mA - Analog 1 2: mA - Analog 2 3: mA - Analog 3 4: Unused
Description	This parameter is used to determine how the mains active power will be measured. 5 values can be selected: - CT : The mains power will be measured with a current transformer. Earth fault protection not available. - mA - Analog 1 : The mains power will be measured with a 4-20mA converter signal connected to analog input 1. Earth fault protection available. - mA - Analog 2: The mains power will be measured with a 4-20mA converter signal connected to analog input 2. Earth fault protection available. - mA - Analog 3: The mains power will be measured with a 4-20mA converter signal connected to analog input 3. Earth fault protection available. - Not used: No measurement of mains active power. Earth fault protection available.

Variable	External MCB low kW trip
Address	[2156]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: No 1: Yes
Description	This parameter is used to enable opening of the mains breaker on an external active power low threshold. When this parameter is enabled, the automated system will not open the mains breaker when the value of the mains active power reaches 0, but will wait for the digital input configured as 'External mains low threshold' to activate. This function can be used with an external device that measures the 3 mains currents and provides a digital output that is activated when the 3 currents are 0A.

MODBUS TABLE

Variable	Mains circuit breaker control type
Address	[2307]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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 Mains circuit breaker of the genset (pulse, hold, coil...)

Variable	Mains breaker tripping mode on mains failure
Address	[2312]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: Immediately 2: After generator ready 3: After timer
Description	Mains breaker opening mode on Mains electrical fault (0: immediately/1:After start/2:After GE ready/3:After timer)

Variable	Timer to open mains breaker on mains failure
Address	[2313]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	9999
Description	Delay before MCB open command on fault if E2312 = 3

MODBUS TABLE

Variable	Mains breaker control pulse length
Address	[2314]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	1
Max value	100
Description	Mains circuit breaker pulse length

Variable	Undervoltage coil deenergized time
Address	[2315]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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	[2316]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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.

ENGINE

Variable	Hide engine measurement
Address	[2032]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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.

MODBUS TABLE

Variable	Number of pole pairs
Address	[2202]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
List	<ul style="list-style-type: none"> 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.

MODBUS TABLE

Variable	Units of measurement
Address	[3117]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Disabled 1: Enable
Description	<p>This parameter allows to determine if the module must manage the engine sequence or if another device manages it. 2 values can be configured:</p> <ul style="list-style-type: none"> - 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
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.

MODBUS TABLE

Variable	Pre-start timer (Glow plugs & Auxiliaries)
Address	[3456]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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).

MODBUS TABLE

Variable	Activation order of starters
Address	[3459]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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.

MODBUS TABLE

Variable	Stop threshold of the first starter
Address	[3462]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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).

MODBUS TABLE

Variable	Minimum holding time of the starter
Address	[3466]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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.

MODBUS TABLE

Variable	Speed stabilization timer
Address	[3469]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	0
Max value	9999
Description	Fail to stop engine timer

MODBUS TABLE

Variable	Energize to stop hold timer
Address	[3472]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
List	0: Nominal speed 1: Idle speed
Description	This parameter determines the speed at which the engine should run during the cooling phase.

MODBUS TABLE

Variable	Engine type
Address	[3477]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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 pre-heating, 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
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
Min value	0
Max value	9999
Description	Time during which the starter is active without ignition

MODBUS TABLE

Variable	Ignition time on start
Address	[3481]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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.

MODBUS TABLE

Variable	COMPACT ID
Address	[3103]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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	Control on Malfunction Indicator Lamp
Address	[3110]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

MODBUS TABLE

Variable	Control on Amber Warning Lamp
Address	[3112]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Enable communication protocol
Address	[3118]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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.

INPUTS/OUTPUTS

Variable	Validity on analog input 1
Address	[2681]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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)

MODBUS TABLE

Variable	Polarity NO/NC on AI 1
Address	[2684]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	0
Max value	1
Description	Direction of Analog input 3 when set as digital input (0=Normaly Open/1=Normaly Close)

MODBUS TABLE

Variable	Delay on AI activation 1
Address	[2687]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	65535
Description	Digital Input 1 activation timer

MODBUS TABLE

Variable	Timer ON Digital Input 2
Address	[2710]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	65535
Description	Digital Input 5 activation timer

MODBUS TABLE

Variable	Timer ON Digital Input 6
Address	[2714]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	65535
Description	Digital Input 9 activation timer

MODBUS TABLE

Variable	Timer OFF Digital Input 1
Address	[2718]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	65535
Description	Digital Input 4 desactivation timer

MODBUS TABLE

Variable	Timer OFF Digital Input 5
Address	[2722]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	65535
Description	Digital Input 8 desactivation timer

MODBUS TABLE

Variable	Timer OFF Digital Input 9
Address	[2726]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	0
Max value	3
Description	Digital Input 2 activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

MODBUS TABLE

Variable	Validity on digital input 3
Address	[2729]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	0
Max value	3
Description	Digital Input 5 activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

MODBUS TABLE

Variable	Validity on digital input 6
Address	[2732]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	0
Max value	3
Description	Digital Input 8 activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

MODBUS TABLE

Variable	Validity on digital input 9
Address	[2735]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	Direction of Digital Input 3 (0=Normaly Open/1=Normaly Close)

MODBUS TABLE

Variable	Polarity NO/NC on DI 4
Address	[2739]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	Direction of Digital Input 7 (0=Normaly Open/1=Normaly Close)

MODBUS TABLE

Variable	Polarity NO/NC on DI 8
Address	[2743]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	Polarity (0=Normaly De-energized / 1=Normaly Energized) Digital output 2

MODBUS TABLE

Variable	Polarity NE/ND DO 3
Address	[2753]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	Polarity (0=Normaly De-energized / 1=Normaly Energized) Digital output 6

MODBUS TABLE

Variable	Direction NO/NC Relay 1
Address	[2759]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	65535
Description	Digital ouput 2 pulse timer (0 = no pulse, continous activation)

MODBUS TABLE

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

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

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

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

MODBUS TABLE

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

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

Variable	Activation delay DO 01
Address	[2793]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
Min value	0
Max value	65535
Description	Delay before physical activation of logic output 2

MODBUS TABLE

Variable	Activation delay DO 03
Address	[2795]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	65535
Description	Delay before physical activation of logic output 6

MODBUS TABLE

Variable	Activation delay relay 1
Address	[8250]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

MODBUS TABLE

Variable	CANopenTM I2
Address	[3233]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

MODBUS TABLE

Variable	CANopenTM I5
Address	[3236]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

MODBUS TABLE

Variable	CANopenTM I8
Address	[3239]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

MODBUS TABLE

Variable	CANopenTM I11
Address	[3242]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

MODBUS TABLE

Variable	CANopenTM I14
Address	[3245]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

MODBUS TABLE

Variable	CANopenTM I17
Address	[3248]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

MODBUS TABLE

Variable	CANopenTM I20
Address	[3251]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

MODBUS TABLE

Variable	CANopenTM I23
Address	[3254]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

MODBUS TABLE

Variable	CANopenTM I26
Address	[3257]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

MODBUS TABLE

Variable	CANopenTM I29
Address	[3260]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

MODBUS TABLE

Variable	CANopenTM I32
Address	[3263]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

MODBUS TABLE

Variable	Validity on CANopen digital input 4
Address	[3267]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

MODBUS TABLE

Variable	Validity on CANopen digital input 8
Address	[3271]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

MODBUS TABLE

Variable	Validity on CANopen digital input 12
Address	[3275]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

MODBUS TABLE

Variable	Validity on CANopen digital input 16
Address	[3279]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

MODBUS TABLE

Variable	Validity on CANopen digital input 20
Address	[3283]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

MODBUS TABLE

Variable	Validity on CANopen digital input 24
Address	[3287]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

MODBUS TABLE

Variable	Validity on CANopen digital input 28
Address	[3291]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

MODBUS TABLE

Variable	Validity on CANopen digital input 32
Address	[3295]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

MODBUS TABLE

Variable	CANopenDir I4
Address	[3299]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

MODBUS TABLE

Variable	CANopenDir I8
Address	[3303]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

MODBUS TABLE

Variable	CANopenDir I12
Address	[3307]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

MODBUS TABLE

Variable	CANopenDir I16
Address	[3311]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

MODBUS TABLE

Variable	CANopenDir I20
Address	[3315]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

MODBUS TABLE

Variable	CANopenDir I24
Address	[3319]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

MODBUS TABLE

Variable	CANopenDir I28
Address	[3323]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

MODBUS TABLE

Variable	CANopenDir I32
Address	[3327]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

MODBUS TABLE

Variable	CANopenModeO4
Address	[3385]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

MODBUS TABLE

Variable	CANopenModeO8
Address	[3389]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

MODBUS TABLE

Variable	CANopenModeO12
Address	[3393]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

MODBUS TABLE

Variable	CANopenModeO16
Address	[3397]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

MODBUS TABLE

Variable	CANopenModeO20
Address	[3401]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

MODBUS TABLE

Variable	CANopenModeO24
Address	[3405]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

MODBUS TABLE

Variable	CANopenModeO28
Address	[3409]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

MODBUS TABLE

Variable	CANopenModeO32
Address	[3413]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	-32768
Max value	32767
Description	Offset for CANopen analog input 2 value

MODBUS TABLE

Variable	CANopen Gain AI 02
Address	[8353]
Scale Factor	3
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	-32768
Max value	32767
Description	Offset for CANopen analog input 4 value

MODBUS TABLE

Variable	CANopen Gain AI 04
Address	[8357]
Scale Factor	3
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	-32768
Max value	32767
Description	Offset for CANopen analog input 6 value

MODBUS TABLE

Variable	CANopen Gain AI 06
Address	[8361]
Scale Factor	3
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	-32768
Max value	32767
Description	Offset for CANopen analog input 8 value

MODBUS TABLE

Variable	CANopen Gain AI 08
Address	[8365]
Scale Factor	3
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	-32768
Max value	32767
Description	Offset for CANopen analog input 10 value

MODBUS TABLE

Variable	CANopen Gain AI 10
Address	[8369]
Scale Factor	3
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	-32768
Max value	32767
Description	Offset for CANopen analog input 12 value

MODBUS TABLE

Variable	CANopen Gain AI 12
Address	[8373]
Scale Factor	3
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	-32768
Max value	32767
Description	Offset for CANopen analog input 14 value

MODBUS TABLE

Variable	CANopen Gain AI 14
Address	[8377]
Scale Factor	3
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	-32768
Max value	32767
Description	Offset for CANopen analog input 16 value

MODBUS TABLE

Variable	CANopen Gain AI 16
Address	[8381]
Scale Factor	3
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

MODBUS TABLE

Variable	CANopenTM I35
Address	[8584]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

MODBUS TABLE

Variable	CANopenTM I38
Address	[8587]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

MODBUS TABLE

Variable	CANopenTM I41
Address	[8590]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

MODBUS TABLE

Variable	CANopenTM I44
Address	[8593]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

MODBUS TABLE

Variable	CANopenTM I47
Address	[8596]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

MODBUS TABLE

Variable	CANopenTM I50
Address	[8599]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

MODBUS TABLE

Variable	CANopenTM I53
Address	[8602]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

MODBUS TABLE

Variable	CANopenTM I56
Address	[8605]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

MODBUS TABLE

Variable	CANopenTM I59
Address	[8608]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

MODBUS TABLE

Variable	CANopenTM I62
Address	[8611]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	0
Max value	65535
Description	Function execution delay, user can add execution delay after logic input status change

MODBUS TABLE

Variable	Validity on CANopen digital input 33
Address	[8614]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

MODBUS TABLE

Variable	Validity on CANopen digital input 37
Address	[8618]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

MODBUS TABLE

Variable	Validity on CANopen digital input 41
Address	[8622]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

MODBUS TABLE

Variable	Validity on CANopen digital input 45
Address	[8626]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

MODBUS TABLE

Variable	Validity on CANopen digital input 49
Address	[8630]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

MODBUS TABLE

Variable	Validity on CANopen digital input 53
Address	[8634]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

MODBUS TABLE

Variable	Validity on CANopen digital input 57
Address	[8638]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

MODBUS TABLE

Variable	Validity on CANopen digital input 61
Address	[8642]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	3
Description	Activation validity (0=Never/1=Always/2=Post Starting/3= rpm & Volt Stabilized)

MODBUS TABLE

Variable	CANopenDir I33
Address	[8646]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

MODBUS TABLE

Variable	CANopenDir I37
Address	[8650]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

MODBUS TABLE

Variable	CANopenDir I41
Address	[8654]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

MODBUS TABLE

Variable	CANopenDir I45
Address	[8658]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

MODBUS TABLE

Variable	CANOpenDir I49
Address	[8662]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

MODBUS TABLE

Variable	CANopenDir I53
Address	[8666]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

MODBUS TABLE

Variable	CANopenDir I57
Address	[8670]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

MODBUS TABLE

Variable	CANopenDir I61
Address	[8674]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	Direction of logic input Normally open or Normally closed

MODBUS TABLE

Variable	CANopenModeO33
Address	[8732]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

MODBUS TABLE

Variable	CANopenModeO37
Address	[8736]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

MODBUS TABLE

Variable	CANopenModeO41
Address	[8740]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

MODBUS TABLE

Variable	CANopenModeO45
Address	[8744]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

MODBUS TABLE

Variable	CANopenModeO49
Address	[8748]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

MODBUS TABLE

Variable	CANopenModeO53
Address	[8752]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

MODBUS TABLE

Variable	CANopenModeO57
Address	[8756]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1
Description	selection of the direction of the logic output, normally energized or de-energized

MODBUS TABLE

Variable	CANopenModeO61
Address	[8760]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
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
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	Change over timer
Address	[2007]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	1
Max value	9999
Description	This timer corresponds to the waiting time between the opening of the generator/bus breaker and the closing of the mains breaker or vice versa.

Variable	Mains back timer
Address	[2009]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	65535
Description	Waiting time between the moment when the mains returns (no longer any protection configured as mains failure is active) and the moment when the sequence to return to the mains is started.

MODBUS TABLE

Variable	Test mode duration
Address	[2016]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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.

MODBUS TABLE

Variable	Unexpected stop timer
Address	[2203]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
Min value	0
Max value	16000
Description	<p>This setpoint adjusts the load ramp timer, for load sharing or mains paralleling mode.</p> <p>In case of a battery it adjusts the discharge ramp timer.</p> <p>100 % of this timer corresponds to transfer 100% of generator/power plant/battery nominal kW.</p> <p>For a ramp, to transfer, from 10% to 60% of nominal kW, the time will be 50% of the set timer.</p>

Variable	Unload ramp timer
Address	[2856]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	16000
Description	<p>This setpoint adjusts the unload ramp timer, for load sharing or mains paralleling mode.</p> <p>In case of a battery it adjusts the charge ramp timer.</p> <p>100 % of this timer corresponds to transfer 100% of generator/power plant nominal kW.</p> <p>For a ramp, to transfer, from 60% to 10% of nominal kW, the time will be 50% of the set timer.</p>

POWER PLANT

Variable	Connection type
Address	[2003]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	<p>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</p>
Description	<p>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:</p> <ul style="list-style-type: none"> - 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	Fail to open/close breaker timer
Address	[2304]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	1
Max value	100
Description	<p>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.</p>

MODBUS TABLE

Variable	Unexpected close/open breaker timer
Address	[2317]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	100
Description	Timer before taking into account an unexpected change of a breaker feedback input state.

Variable	Minimum delay between 2 openings
Address	[2861]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	9999
Description	Minimum time between two load shedding requests

Variable	Action after last opening
Address	[2862]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: Unused 3: Alarm 4: Fault (soft shutdown)
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

Variable	Under frequency threshold 1
Address	[3700]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	1000
Description	First underfrequency level

MODBUS TABLE

Variable	Under frequency threshold 2
Address	[3701]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	1000
Description	Second underfrequency level (must be lower than level 1)

Variable	Opening load on under frequency
Address	[3702]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: Disabled 1: Enable
Description	Enables/Disables underfrequency monitoring for non-essential load shedding

Variable	Maximum kW threshold 1
Address	[3703]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	2000
Description	First overload level

Variable	Maximum KW threshold 2
Address	[3704]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	2000
Description	Second overload level (must be higher than level 1)

MODBUS TABLE

Variable	Opening of the load on maximum kW
Address	[3705]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: Disabled 1: Enable
Description	Enables/Disables overload monitoring for non-essential load shedding

Variable	Timer for threshold 1
Address	[3706]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	9999
Description	Delay before first level activation (kW and Hz)

Variable	Timer for threshold 2
Address	[3707]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	9999
Description	Delay before activation of the second level (kW and Hz). Must be lower than level 1.

GENERATOR PROTECTIONS

Variable	Timer Min Max Speed output
Address	[2389]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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.

MODBUS TABLE

Variable	Control Min Max Speed output
Address	[2390]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
List	0: Unused 3: Alarm
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

MODBUS TABLE

Variable	Out of speed range timer
Address	[2393]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
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.

MODBUS TABLE

Variable	Out of voltage range control
Address	[2396]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Over frequency timer
Address	[2401]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Under frequency timer
Address	[2404]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Over voltage timer
Address	[2407]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Under voltage timer
Address	[2410]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Minimum kW timer
Address	[2413]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Maximum kW timer
Address	[2416]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
Min value	1
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Reverse kW timer
Address	[2419]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Minimum kVAR timer
Address	[2422]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Maximum kVAR timer
Address	[2425]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
Min value	1
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Reverse kVAR timer
Address	[2428]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
Min value	0
Max value	65535
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Over current timer
Address	[2431]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
Min value	0
Max value	65535
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Neutral current timer
Address	[2434]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Over frequency timer 2
Address	[2437]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Under frequency timer 2
Address	[2440]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Over voltage timer 2
Address	[2443]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Under voltage timer 2
Address	[2446]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Minimum kW timer 2
Address	[2449]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Maximum kW timer 2
Address	[2452]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
Min value	1
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Reverse kW timer 2
Address	[2455]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Minimum kVAR timer 2
Address	[2458]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Maximum kVAR timer 2
Address	[2461]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
Min value	1
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Reverse kVAR timer 2
Address	[2464]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
Min value	0
Max value	65535
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Over current timer 2
Address	[2467]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
Min value	0
Max value	65535
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Neutral current timer 2
Address	[2470]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
Min value	0
Max value	65535
Description	Generator Current Short Circuit Protection : K constant characteristic

MODBUS TABLE

Variable	Short Circuit C constant characteristic
Address	[2473]
Scale Factor	3
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	1000
Description	Generator Current Short Circuit Protection : IS constant characteristic

MODBUS TABLE

Variable	Generator Short Circuit Control
Address	[2477]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
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
Min value	0
Max value	65535
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Earth fault timer
Address	[2480]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
Min value	0
Max value	65535
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Earth fault timer 2
Address	[2483]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
Min value	1
Max value	32500
Description	Earth Current Transformers Ratio. CT must be connected to J5 for earth fault measurement.

MODBUS TABLE

Variable	Voltage unbalance threshold
Address	[2486]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

MODBUS TABLE

Variable	Voltage unbalance threshold 2
Address	[2489]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

MODBUS TABLE

Variable	Current unbalance threshold
Address	[2492]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

MODBUS TABLE

Variable	Current unbalance threshold 2
Address	[2495]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

MODBUS TABLE

Variable	Curve type
Address	[2498]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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	Rotophase activation direction (0 = Indirect, 1 = Direct)
Address	[8500]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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.

MODBUS TABLE

Variable	Rotophase protection control
Address	[8501]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: Unused 1: Generator electrical fault 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

MAINS PROTECTIONS

Variable	Over frequency threshold
Address	[2500]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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.

MODBUS TABLE

Variable	Over frequency control
Address	[2502]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: Unused 1: Generator electrical fault 2: Mains failure 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	Under frequency threshold
Address	[2503]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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.

MODBUS TABLE

Variable	Under frequency control
Address	[2505]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: Unused 1: Generator electrical fault 2: Mains failure 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	Over voltage threshold
Address	[2506]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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.

MODBUS TABLE

Variable	Over voltage control
Address	[2508]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: Unused 1: Generator electrical fault 2: Mains failure 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	Under voltage threshold
Address	[2509]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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.

MODBUS TABLE

Variable	Under voltage control
Address	[2511]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: Unused 1: Generator electrical fault 2: Mains failure 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	Minimum kW threshold
Address	[2512]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	32500
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Minimum kW timer
Address	[2513]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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.

MODBUS TABLE

Variable	Minimum kW control
Address	[2514]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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	Maximum kW threshold
Address	[2515]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	32500
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Maximum kW timer
Address	[2516]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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.

MODBUS TABLE

Variable	Maximum kW control
Address	[2517]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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	Reverse kW threshold
Address	[2518]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	32500
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Reverse kW timer
Address	[2519]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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.

MODBUS TABLE

Variable	Reverse kW control
Address	[2520]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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	Minimum kVAR threshold
Address	[2521]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	32500
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Minimum kVAR timer
Address	[2522]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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.

MODBUS TABLE

Variable	Minimum kVAR control
Address	[2523]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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	Maximum kVAR threshold
Address	[2524]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	32500
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Maximum kVAR timer
Address	[2525]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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.

MODBUS TABLE

Variable	Maximum kVAR control
Address	[2526]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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	Reverse kVAR threshold
Address	[2527]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	32500
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Reverse kVAR timer
Address	[2528]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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.

MODBUS TABLE

Variable	Reverse kVAR control
Address	[2529]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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	Over frequency threshold 2
Address	[2530]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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.

MODBUS TABLE

Variable	Over frequency control 2
Address	[2532]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: Unused 1: Generator electrical fault 2: Mains failure 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	Under frequency threshold 2
Address	[2533]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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.

MODBUS TABLE

Variable	Under frequency control 2
Address	[2535]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: Unused 1: Generator electrical fault 2: Mains failure 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	Over voltage threshold 2
Address	[2536]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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.

MODBUS TABLE

Variable	Over voltage control 2
Address	[2538]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: Unused 1: Generator electrical fault 2: Mains failure 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	Under voltage threshold 2
Address	[2539]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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.

MODBUS TABLE

Variable	Under voltage control 2
Address	[2541]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: Unused 1: Generator electrical fault 2: Mains failure 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	Minimum kW threshold 2
Address	[2542]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	32500
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Minimum kW timer 2
Address	[2543]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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.

MODBUS TABLE

Variable	Minimum kW control 2
Address	[2544]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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	Maximum kW threshold 2
Address	[2545]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	32500
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Maximum kW timer 2
Address	[2546]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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.

MODBUS TABLE

Variable	Maximum kW control 2
Address	[2547]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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	Reverse kW threshold 2
Address	[2548]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	32500
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Reverse kW timer 2
Address	[2549]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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.

MODBUS TABLE

Variable	Reverse kW control 2
Address	[2550]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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	Minimum kVAR threshold 2
Address	[2551]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	32500
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Minimum kVAR timer 2
Address	[2552]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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.

MODBUS TABLE

Variable	Minimum kVAR control 2
Address	[2553]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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	Maximum kVAR threshold 2
Address	[2554]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	32500
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Maximum kVAR timer 2
Address	[2555]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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.

MODBUS TABLE

Variable	Maximum kVAR control 2
Address	[2556]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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	Reverse kVAR threshold 2
Address	[2557]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	32500
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Reverse kVAR timer 2
Address	[2558]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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.

MODBUS TABLE

Variable	Reverse kVAR control 2
Address	[2559]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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	Vector jump threshold
Address	[2560]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	1
Max value	30
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	Vector jump control
Address	[2561]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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.

MODBUS TABLE

Variable	df/dt threshold
Address	[2562]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	1
Max value	100
Description	Threshold to be exceeded to trigger the associated control for this protection.

Variable	df/dt control
Address	[2563]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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	Vector jump and df/dt timer
Address	[2564]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	65535
Description	Timer Initialisation after mains paralleling to activate Vector Jump and/or df/dt (Ro-cof) protections

MODBUS TABLE

Variable	Voltage unbalance threshold
Address	[2565]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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.

MODBUS TABLE

Variable	Voltage unbalance threshold 2
Address	[2568]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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.

MODBUS TABLE

Variable	Rotophase activation direction (0 = Indirect, 1 = Direct)
Address	[2584]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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.

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Variable	Over speed threshold
Address	[2350]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Over speed timer
Address	[2351]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
Min value	0
Max value	2000
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Under speed timer
Address	[2354]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
Min value	0
Max value	350
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Min. voltage battery timer
Address	[2357]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
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.

MODBUS TABLE

Variable	Max. voltage battery control
Address	[2361]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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.

MODBUS TABLE

Variable	Oil pressure control
Address	[2364]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
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
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.

MODBUS TABLE

Variable	Water temperature control
Address	[2367]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
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
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.

MODBUS TABLE

Variable	Over speed control 2
Address	[2370]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
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
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.

MODBUS TABLE

Variable	Under speed control 2
Address	[2373]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
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
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
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.

MODBUS TABLE

Variable	Min. voltage battery control 2
Address	[2376]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
List	0: Unused 3: Alarm
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

MODBUS TABLE

Variable	Oil pressure threshold 2
Address	[2380]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

MODBUS TABLE

Variable	Water temperature threshold 2
Address	[2383]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

MODBUS TABLE

Variable	Low threshold boost battery
Address	[2386]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
List	0: No 1: Yes
Description	This setpoint activate the boost battery function. This function activate the boost battery output with a low threshold (variable 2386) of the battery voltage and deactivate the output with high threshold (variable 2387).

Variable	Analog input 1 threshold
Address	[2600]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read/Write
Min value	-32768
Max value	32767
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Analog input 1 timer
Address	[2601]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 1: Generator electrical fault 2: Mains failure 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 9: Mains electrical fault
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
Min value	-32768
Max value	32767
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Analog input 1 timer 2
Address	[2604]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Unused 1: Generator electrical fault 2: Mains failure 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 9: Mains electrical fault
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
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 variables 2602 and 2605 will activate from thresholds level set and below. If the setpoint is on "Maximum" then the action of variables 2602 and 2605 will activate from thresholds level set and above.

MODBUS TABLE

Variable	Analog input 2 threshold
Address	[2608]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
List	<ul style="list-style-type: none"> 0: Unused 1: Generator electrical fault 2: Mains failure 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 9: Mains electrical fault
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

MODBUS TABLE

Variable	Analog input 2 threshold 2
Address	[2611]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
List	0: Unused 1: Generator electrical fault 2: Mains failure 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 9: Mains electrical fault
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

MODBUS TABLE

Variable	Direction analog input 2 protection
Address	[2614]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	0
Max value	9999
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Analog input 3 control
Address	[2618]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: Unused 1: Generator electrical fault 2: Mains failure 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 9: Mains electrical fault
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
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
Min value	0
Max value	9999
Description	Threshold to be exceeded to trigger the associated control for this protection.

MODBUS TABLE

Variable	Analog input 3 control 2
Address	[2621]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: Unused 1: Generator electrical fault 2: Mains failure 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown) 9: Mains electrical fault
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
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 variables 2618 and 2621 will activate from thresholds level set and below. If the setpoint is on "Maximum" then the action of variables 2618 and 2621 will activate from thresholds level set and above.

Variable	Control on Combined Alarm Yellow
Address	[3121]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

MODBUS TABLE

Variable	Control on Combined Alarm Red
Address	[3122]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: Unused 3: Alarm 4: Fault (soft shutdown) 5: Security (hard shutdown)
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

COMMUNICATION

Variable	Control on Modbus server timeouts
Address	[3030]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: Unused 3: Alarm 4: Fault (soft shutdown)
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
List	0: No 1: Yes
Description	Enable connection to a Modbus server for custom read/write requests

MODBUS TABLE

Variable	Modbus server frame timeout
Address	[3032]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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.

MODBUS TABLE

Variable	CAN 2 baud rate
Address	[3051]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	125: 125 kBit/s 250: 250 kBit/s 500: 500 kBit/s 1000: 1000 kBit/s
Description	<p>CAN bus speed 2:</p> <ul style="list-style-type: none"> - 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. <p>A higher speed results in a reduction of the maximum bus distance.</p>

Variable	Control on ECU error
Address	[3058]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: Unused 3: Alarm 4: Fault (soft shutdown)
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
List	0: Unused 3: Alarm 4: Fault (soft shutdown)
Description	Action performed on protection's trigger. Actions' description is available in the technical documentation.

MODBUS TABLE

Variable	Timer before ECU error
Address	[3116]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
List	0: Off 1: All received frames 2: Frames from ECU address only 3: All emitted 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
List	0: No 1: Yes
Description	This parameter is used to integrate the message counter into the TSC1 speed frame.

MODBUS TABLE

Variable	TSC1 Message checksum
Address	[3124]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Saved var. 2 (Customisable)
Address	[8001]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Saved var. 5 (Customisable)
Address	[8004]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Saved var. 8 (Customisable)
Address	[8007]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Saved var. 11 (Customisable)
Address	[8010]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Saved var. 14 (Customisable)
Address	[8013]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Saved var. 17 (Customisable)
Address	[8016]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Saved var. 20 (Customisable)
Address	[8019]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Saved var. 23 (Customisable)
Address	[8022]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Saved var. 26 (Customisable)
Address	[8025]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Saved var. 29 (Customisable)
Address	[8028]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Saved var. 32 (Customisable)
Address	[8031]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Saved var. 35 (Customisable)
Address	[8034]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Saved var. 38 (Customisable)
Address	[8037]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Saved var. 41 (Customisable)
Address	[8040]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Saved var. 44 (Customisable)
Address	[8043]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Saved var. 47 (Customisable)
Address	[8046]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Saved var. 50 (Customisable)
Address	[8049]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Unsaved var.3 (Customisable)
Address	[8052]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Unsaved var.6 (Customisable)
Address	[8055]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Unsaved var.9 (Customisable)
Address	[8058]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Unsaved var.12 (Customisable)
Address	[8061]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Unsaved var.15 (Customisable)
Address	[8064]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Unsaved var.18 (Customisable)
Address	[8067]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Unsaved var.21 (Customisable)
Address	[8070]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Unsaved var.24 (Customisable)
Address	[8073]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Unsaved var.27 (Customisable)
Address	[8076]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Unsaved var.30 (Customisable)
Address	[8079]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Unsaved var.33 (Customisable)
Address	[8082]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Unsaved var.36 (Customisable)
Address	[8085]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Unsaved var.39 (Customisable)
Address	[8088]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Unsaved var.42 (Customisable)
Address	[8091]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Unsaved var.45 (Customisable)
Address	[8094]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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...

MODBUS TABLE

Variable	Unsaved var.48 (Customisable)
Address	[8097]
Scale Factor	0
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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
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
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
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.

MODBUS TABLE

Variable	Synchronization & Load sharing only
Address	[2024]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: No 1: Yes
Description	<p>This parameter determines if the product should process only synchronization and kW/kVAR management. 2 values can be selected:</p> <ul style="list-style-type: none"> - 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
List	0: No 1: Yes
Description	<p>This parameter is used to enable static paralleling. 2 values can be selected:</p> <ul style="list-style-type: none"> - No: Standard operation <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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 power-plant).

MODBUS TABLE

Variable	Speed governor amplitude
Address	[2205]
Scale Factor	2
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	1000
Description	<p>This parameter determines the amplitude of the speed output.</p> <p>Speed output voltage = Speed output offset + (Speed correction * Speed output amplitude).</p> <p>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).</p> <p>On a 50Hz application, this parameter must be set to obtain a minimum correction of 47.5Hz and a maximum correction of 52.5Hz.</p> <p>On a 60Hz application, this parameter should be set to obtain a minimum correction of 57.5Hz and a maximum correction of 62.5Hz.</p> <p>In manual mode:</p> <ul style="list-style-type: none"> - 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.

MODBUS TABLE

Variable	Speed governor offset
Address	[2206]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read/Write
Min value	-1000
Max value	1000
Description	<p>This parameter determines the speed output offset.</p> <p>Speed output voltage = Speed output offset + (Speed correction * Speed output amplitude).</p> <p>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).</p> <p>On a 50Hz application, this parameter should be set to 50Hz when there is no correction.</p> <p>On a 60Hz application, this parameter should be set to 60Hz when there is no correction.</p> <p>In manual mode:</p> <ul style="list-style-type: none"> - 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
Min value	0
Max value	1
Description	<p>Analog output 1 operating mode :</p> <ul style="list-style-type: none"> - 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).

MODBUS TABLE

Variable	Custom setpoint analog output 1
Address	[2214]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read/Write
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
Min value	0
Max value	1000
Description	<p>This parameter determines the amplitude of the voltage output.</p> <p>Voltage output = Voltage output offset + (Voltage correction * Voltage output amplitude).</p> <p>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).</p> <p>On a 400V application, this parameter must be set to obtain a minimum correction of 370V and a maximum correction of 430V.</p> <p>In manual mode:</p> <ul style="list-style-type: none"> - 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.

MODBUS TABLE

Variable	AVR Offset
Address	[2252]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read/Write
Min value	-1000
Max value	1000
Description	<p>This parameter determines the offset of the voltage output.</p> <p>Voltage output = Voltage output offset + (Voltage correction * Voltage output amplitude).</p> <p>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).</p> <p>On a 400V application, this parameter must be set to obtain 400V when there is no correction.</p> <p>In manual mode:</p> <ul style="list-style-type: none"> - 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
Min value	0
Max value	1
Description	<p>Analog output 2 operating mode :</p> <ul style="list-style-type: none"> - 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).

MODBUS TABLE

Variable	Custom setpoint analog output 2
Address	[2256]
Scale Factor	2
Type	Signed integer 16 bits
Read/Write	Read/Write
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	Screensaver timeout
Address	[3551]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	0
Max value	100
Description	LCD contrast intensity

MODBUS TABLE

Variable	LCD screen backlight
Address	[3555]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	10299
Description	Logger of the variable to archive

MODBUS TABLE

Variable	Variable 4 to log
Address	[3603]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	10299
Description	Logger of the variable to archive

MODBUS TABLE

Variable	Variable 8 to log
Address	[3607]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	0
Max value	10299
Description	Logger of the variable to archive

MODBUS TABLE

Variable	Activation
Address	[3610]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
Min value	1
Max value	9999
Description	Time in second of interval between each archiving

MODBUS TABLE

Variable	Logging period variable 2
Address	[3613]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	1
Max value	9999
Description	Time in second of interval between each archiving

MODBUS TABLE

Variable	Logging period variable 6
Address	[3617]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	1
Max value	9999
Description	Time in second of interval between each archiving

MODBUS TABLE

Variable	Logging period variable 10
Address	[3621]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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

MODBUS TABLE

Variable	Log variable 3 on
Address	[3624]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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

MODBUS TABLE

Variable	Log variable 6 on
Address	[3627]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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

MODBUS TABLE

Variable	Log variable 9 on
Address	[3630]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
List	0: No 1: Yes
Description	Records controller power up event

MODBUS TABLE

Variable	Record engine status (Start/Stop)
Address	[8301]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: No 1: Yes
Description	Records engine start and stop events

Variable	Record mains status
Address	[8302]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: No 1: Yes
Description	Records mains failure and mains back events

Variable	Record circuit breaker status (Open/Closed)
Address	[8303]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
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
List	0: No 1: Yes
Description	Enable hysteresis on analog input 3 with thresholds E2662 (Low Level) & E2665 (High Level)

MODBUS TABLE

Variable	Low level threshold
Address	[2660]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	-32768
Max value	32767
Description	High level threshold for digital output activation on hysteresis 1

MODBUS TABLE

Variable	High level threshold
Address	[2664]
Scale Factor	1
Type	Signed integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	9999
Description	Timer before set/reset digital output on hysteresis low threshold 2

MODBUS TABLE

Variable	Timer on low level threshold
Address	[2668]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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
Min value	0
Max value	9999
Description	Timer before set/reset digital output on hysteresis high threshold 3

MODBUS TABLE

Variable	Hysteresis Direction 1
Address	[2672]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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)

MODBUS TABLE

Variable	Hysteresis 1 enable for digital input
Address	[2769]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: No 1: Yes
Description	<p>This parameter enables the first hysteresis function on logic threshold to be activated.</p> <p>To do this:</p> <ul style="list-style-type: none"> - 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
List	0: No 1: Yes
Description	<p>This parameter enables the second hysteresis function on logic threshold to be activated.</p> <p>To do this:</p> <ul style="list-style-type: none"> - 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

MODBUS TABLE

Variable	Hysteresis 3 enable for digital input
Address	[2771]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: No 1: Yes
Description	<p>This parameter enables the third hysteresis function on logic threshold to be activated.</p> <p>To do this:</p> <ul style="list-style-type: none"> - 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
List	0: No 1: Yes
Description	<p>This parameter enables the fourth hysteresis function on logic threshold to be activated.</p> <p>To do this:</p> <ul style="list-style-type: none"> - 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

MODBUS TABLE

Variable	Hysteresis 5 enable for digital input
Address	[2773]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: No 1: Yes
Description	<p>This parameter enables the fifth hysteresis function on logic threshold to be activated.</p> <p>To do this:</p> <ul style="list-style-type: none"> - 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
List	0: No 1: Yes
Description	<p>This parameter enables the sixth hysteresis function on logic threshold to be activated.</p> <p>To do this:</p> <ul style="list-style-type: none"> - 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

MODBUS TABLE

Variable	Hysteresis 7 enable for digital input
Address	[2775]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
List	0: No 1: Yes
Description	<p>This parameter enables the seventh hysteresis function on logic threshold to be activated.</p> <p>To do this:</p> <ul style="list-style-type: none"> - 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
List	0: No 1: Yes
Description	<p>This parameter enables the eighth hysteresis function on logic threshold to be activated.</p> <p>To do this:</p> <ul style="list-style-type: none"> - 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

MODBUS TABLE

Variable	Timer ON hysteresis 1
Address	[2777]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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.

MODBUS TABLE

Variable	Timer ON hysteresis 4
Address	[2780]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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.

MODBUS TABLE

Variable	Timer ON hysteresis 7
Address	[2783]
Scale Factor	1
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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

MODBUS TABLE

Variable	Direction hysteresis 2
Address	[2786]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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

MODBUS TABLE

Variable	Direction hysteresis 5
Address	[2789]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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
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
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

MODBUS TABLE

Variable	Direction hysteresis 8
Address	[2792]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
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

DIGITAL INPUT FUNCTIONS

GENERATOR

Variable	Generator breaker feedback
Address	[4501]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	15
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
Min value	0
Max value	15
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
Min value	0
Max value	15
Description	<p>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.</p> <p>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.</p> <p>If this function is used during an external start sequence, the generator switches to speed stabilization check as soon as this input is activated.</p> <p>If the input is declared and missing while the generator is on load, a critical fault will be triggered.</p> <p>If the input is declared and missing while the generator is starting, a start fault will be triggered after the corresponding time delay.</p>

MODBUS TABLE

Variable	Start inhibition
Address	[4524]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	15
Description	Prevents engine from starting, input will block start sequence only if active before starting demand.

Variable	Override (NFE37312)
Address	[4610]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	15
Description	Override mode: will disable all configured protections of the controller except : Over-speed, Emergency stop and short-circuit. Other fault will be displayed as alarm dedicated override running hours counter will be incremented in override mode.

Variable	Remote start off load
Address	[4611]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	15
Description	Activation will start generator(s) in automatic mode and keep breaker open: used for off load tests.

MODBUS TABLE

Variable	Remote start with timer
Address	[4612]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	15
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
Min value	0
Max value	15
Description	Manual prestart auxiliary request, will activate the output 'Pre-start (Glow plugs & Auxiliaries)' when in manual mode

INPUTS/OUTPUTS

Variable	Digital output 1 forced
Address	[4630]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	15
Description	Activating this input will force activation of digital output 1.

MODBUS TABLE

Variable	Digital output 2 forced
Address	[4631]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	15
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
Min value	0
Max value	15
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
Min value	0
Max value	15
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
Min value	0
Max value	15
Description	Activating this input will force activation of digital ouput 5.

MODBUS TABLE

Variable	Digital output 6 forced
Address	[4635]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	15
Description	Activating this input will force activation of digital output 6.

Variable	Relay 1 forced
Address	[4950]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	3
Description	Activating this input will force activation of relay output 1.

Variable	Relay 2 forced
Address	[4951]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	3
Description	Activating this input will force activation of relay output 2.

POWER PLANT

Variable	External non essential trip request
Address	[4537]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	15
Description	External activation of the load shedding protection outputs. Use only if load shedding is enable.

ALTERNATIVE SELECTIONS

Variable	Alternative selection 1
Address	[4594]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	15
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
Min value	0
Max value	15
Description	Available variable to toggle a parameter between 2 values. See Alternative selection function.

MODBUS TABLE

Variable	Alternative selection 3
Address	[4596]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	15
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
Min value	0
Max value	15
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
Min value	0
Max value	15
Description	Available variable to toggle a parameter between 2 values. See Alternative selection function.

MODBUS TABLE

Variable	Alternative selection 6
Address	[4599]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	15
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
Min value	0
Max value	15
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
Min value	0
Max value	15
Description	Available variable to toggle a parameter between 2 values. See Alternative selection function.

MODBUS TABLE

Variable	Alternative selection 9
Address	[4602]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	15
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
Min value	0
Max value	15
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
Min value	0
Max value	15
Description	Available variable to toggle a parameter between 2 values. See Alternative selection function.

MODBUS TABLE

Variable	Alternative selection 12
Address	[4605]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	15
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
Min value	0
Max value	15
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
Min value	0
Max value	15
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
Min value	0
Max value	15
Description	15th available variable to switch a parameter between 2 values

MODBUS TABLE

Variable	Alternative selection 16
Address	[4609]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	15
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
Min value	0
Max value	15
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
Min value	0
Max value	15
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
Min value	0
Max value	15
Description	Activate to trigger the corresponding hysteresis low threshold.

MODBUS TABLE

Variable	Hysteresis low threshold DI4
Address	[4617]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	15
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
Min value	0
Max value	15
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
Min value	0
Max value	15
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
Min value	0
Max value	15
Description	Activate to trigger the corresponding hysteresis low threshold.

MODBUS TABLE

Variable	Hysteresis low threshold DI8
Address	[4621]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	15
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
Min value	0
Max value	15
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
Min value	0
Max value	15
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
Min value	0
Max value	15
Description	Activate to trigger the corresponding hysteresis high threshold.

MODBUS TABLE

Variable	Hysteresis high threshold DI4
Address	[4625]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	15
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
Min value	0
Max value	15
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
Min value	0
Max value	15
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
Min value	0
Max value	15
Description	Activate to trigger the corresponding hysteresis high threshold.

MODBUS TABLE

Variable	Hysteresis high threshold DI8
Address	[4629]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	15
Description	Activate to trigger the corresponding hysteresis high threshold.

REMOTE BUTTONS

Variable	Remote faults reset
Address	[4506]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	15
Description	External reset. Acknowledgement of alarm/fault present in display pages (same action as shift+I reset).

Variable	Manual start request
Address	[4509]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	15
Description	Manual start command (alternative to front panel push button). Active in manual mode only.

MODBUS TABLE

Variable	Manual stop request
Address	[4510]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	15
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
Min value	0
Max value	15
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
Min value	0
Max value	15
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
Min value	0
Max value	15
Description	Force controller in auto mode, same effect as AUTO button.

MODBUS TABLE

Variable	Increase speed in manual mode
Address	[4514]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	15
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
Min value	0
Max value	15
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
Min value	0
Max value	15
Description	Remote voltage increase request in manual mode with circuit breaker open (alternative to front panel button)

MODBUS TABLE

Variable	Decrease voltage in manual mode
Address	[4517]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	15
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
Min value	0
Max value	15
Description	Remote manual opening of generator breaker in manual mode (alternative to front button). Active in manual mode only.

Variable	Mains breaker opening in manual mode
Address	[4519]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	15
Description	Remote manual opening of mains breaker in manual mode (alternative to front button). Active in manual mode only.

MODBUS TABLE

Variable	Generator breaker closing in manual mode
Address	[4520]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	15
Description	Remote manual close of generator breaker in manual mode (alternative to front button). Active in manual mode only.

Variable	Mains breaker closing in manual mode
Address	[4521]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	15
Description	Remote manual close of mains 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
Min value	0
Max value	15
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
Min value	0
Max value	15
Description	Activates all LEDs of the module in order to check that the LEDs work

MODBUS TABLE

Variable	Test mode request
Address	[4590]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	15
Description	Force controller in test mode, same effect as TEST button.

MAINS

Variable	Mains breaker feedback
Address	[4500]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	15
Description	Mains breaker position feedback. when active the mains breaker is considered closed.

Variable	Manual mains back
Address	[4544]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	15
Description	When configured, the sequence to switch back on Mains after generator start on Mains failure will be on hold until this input is activated. Load will remain on generator even if Mains back timer is elapsed, input will be mandatory to come back on Mains power.

MODBUS TABLE

Variable	Mains external threshold DI
Address	[4613]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	15
Description	Mains external low threshold digital input. When load transfer from Mains to generator is requested, the digital input will be expected to consider Mains at low load and authorize Mains circuit breaker opening. Use when Mains power reading is not possible and external device is providing low threshold information to controller.

Variable	Mains available
Address	[4642]
Scale Factor	0
Type	Unsigned integer 16 bits
Read/Write	Read/Write
Min value	0
Max value	1
Description	External signal to simulate Mains as available. Mains LED will lit when input is activated.

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)

MODBUS TABLE

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 connected to negative, 0 = Input not connected. Check documentation for complete list

Variable	Digital input 2
Address	[954.1]
Type	Bitfield 16 bits
Description	-

MODBUS TABLE

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	-

MODBUS TABLE

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 outputs/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	-

MODBUS TABLE

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	-

MODBUS TABLE

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	-

MODBUS TABLE

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	-

MODBUS TABLE

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	-

MODBUS TABLE

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	-

MODBUS TABLE

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	-

MODBUS TABLE

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	-

MODBUS TABLE

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 connected to negative, 0 = Input not connected. 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	-

MODBUS TABLE

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	-

MODBUS TABLE

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	-

MODBUS TABLE

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	-

MODBUS TABLE

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	-

MODBUS TABLE

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	-

MODBUS TABLE

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	-

MODBUS TABLE

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	-

MODBUS TABLE

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	-

MODBUS TABLE

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	-

MODBUS TABLE

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	-

MODBUS TABLE

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	-

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	-

MODBUS TABLE

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	-

MODBUS TABLE

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	-

MODBUS TABLE

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	-

MODBUS TABLE

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	-

MODBUS TABLE

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	-

MODBUS TABLE

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	-

MODBUS TABLE

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	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	-

MODBUS TABLE

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.

MODBUS TABLE

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.

MODBUS TABLE

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.

MODBUS TABLE

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.

MODBUS TABLE

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	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.

MODBUS TABLE

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.

MAINS 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	-

MODBUS TABLE

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 kW level 1 active as an alarm
Address	[966.8]
Type	Bitfield 16 bits
Description	-

Variable	Minimum kW level 2 active as an alarm
Address	[966.9]
Type	Bitfield 16 bits
Description	-

Variable	Maximum kW level 1 active as an alarm
Address	[966.10]
Type	Bitfield 16 bits
Description	-

Variable	Maximum kW level 2 active as an alarm
Address	[966.11]
Type	Bitfield 16 bits
Description	-

Variable	Reverse kW level 1 active as an alarm
Address	[966.12]
Type	Bitfield 16 bits
Description	-

MODBUS TABLE

Variable	Reverse kW level 2 active as an alarm
Address	[966.13]
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	-

MODBUS TABLE

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 kW level 1 active as a fault
Address	[967.8]
Type	Bitfield 16 bits
Description	-

Variable	Minimum kW level 2 active as a fault
Address	[967.9]
Type	Bitfield 16 bits
Description	-

Variable	Maximum kW level 1 active as a fault
Address	[967.10]
Type	Bitfield 16 bits
Description	-

MODBUS TABLE

Variable	Maximum kW level 2 active as a fault
Address	[967.11]
Type	Bitfield 16 bits
Description	-

Variable	Reverse kW level 1 active as a fault
Address	[967.12]
Type	Bitfield 16 bits
Description	-

Variable	Reverse kW level 2 active as a fault
Address	[967.13]
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	Mains over frequency level 1
Address	[4300.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Mains over frequency level 2
Address	[4300.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

MODBUS TABLE

Variable	Mains under frequency level 1
Address	[4301.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Mains under frequency level 2
Address	[4301.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Mains over voltage level 1
Address	[4302.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Mains over voltage level 2
Address	[4302.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Mains under voltage level 1
Address	[4303.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Mains under voltage level 2
Address	[4303.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Mains minimum KW level 1
Address	[4304.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

MODBUS TABLE

Variable	Mains minimum KW level 2
Address	[4304.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Mains maximum KW level 1
Address	[4305.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Mains maximum KW level 2
Address	[4305.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Mains reverse KW level 1
Address	[4306.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Mains reverse KW level 2
Address	[4306.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Mains minimum KVAR level 1
Address	[4307.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Mains minimum KVAR level 2
Address	[4307.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

MODBUS TABLE

Variable	Mains maximum KVAR level 1
Address	[4308.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Mains maximum KVAR level 2
Address	[4308.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Mains reverse KVAR level 1
Address	[4309.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Mains reverse KVAR level 2
Address	[4309.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Vector jump level 1
Address	[4310.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Vector jump level 2
Address	[4310.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	df/dt level 1
Address	[4311.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

MODBUS TABLE

Variable	df/dt level 2
Address	[4311.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Mains voltage unbalance level 1
Address	[4314.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Mains voltage unbalance level 2
Address	[4314.1]
Type	Bitfield 16 bits
Description	Active when the level 2 protection triggered.

Variable	Mains rotophase level 1
Address	[4318.0]
Type	Bitfield 16 bits
Description	Active when the level 1 protection triggered.

Variable	Mains 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.

MODBUS TABLE

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.

MODBUS TABLE

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	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.

MODBUS TABLE

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 occurred: Fault LED is blinking
Address	[950.0]
Type	Bitfield 16 bits
Description	Bitfield 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 occurred : Alarm LED is blinking Bit 0 = 1 : New fault occurred : Fault LED is blinking

Variable	New alarm occurred: 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

MODBUS TABLE

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	-

MODBUS TABLE

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	-

MODBUS TABLE

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	-

MODBUS TABLE

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 mains breaker active as a fault
Address	[961.12]
Type	Bitfield 16 bits
Description	-

Variable	Fail to open mains breaker active as a fault
Address	[961.13]
Type	Bitfield 16 bits
Description	-

Variable	Mains breaker open suddenly active as a fault
Address	[961.14]
Type	Bitfield 16 bits
Description	-

Variable	Mains breaker close suddenly active as a fault
Address	[961.15]
Type	Bitfield 16 bits
Description	-

Variable	Maximum kVAR level 1 active as an alarm
Address	[968.0]
Type	Bitfield 16 bits
Description	For Modbus reading

MODBUS TABLE

Variable	Maximum kVAR level 2 active as an alarm
Address	[968.1]
Type	Bitfield 16 bits
Description	-

Variable	Reverse kVAR level 1 active as an alarm
Address	[968.2]
Type	Bitfield 16 bits
Description	-

Variable	Reverse kVAR level 2 active as an alarm
Address	[968.3]
Type	Bitfield 16 bits
Description	-

Variable	Vector jump active as an alarm
Address	[968.4]
Type	Bitfield 16 bits
Description	-

Variable	Df/dt (Rocof) active as an alarm
Address	[968.5]
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	-

MODBUS TABLE

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	Maximum kVAR level 1 active as a fault
Address	[969.0]
Type	Bitfield 16 bits
Description	For Modbus reading

Variable	Maximum kVAR level 2 active as a fault
Address	[969.1]
Type	Bitfield 16 bits
Description	-

Variable	Reverse kVAR level 1 active as a fault
Address	[969.2]
Type	Bitfield 16 bits
Description	-

Variable	Reverse kVAR level 2 active as a fault
Address	[969.3]
Type	Bitfield 16 bits
Description	-

Variable	Vector jump active as a fault
Address	[969.4]
Type	Bitfield 16 bits
Description	-

MODBUS TABLE

Variable	Df/dt (Rocof) active as a fault
Address	[969.5]
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	Minimum/maximum analog measure 1 (level 1) active as an alarm
Address	[970.4]
Type	Bitfield 16 bits
Description	-

MODBUS TABLE

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	-

MODBUS TABLE

Variable	Fail to synchronize active as a fault
Address	[971.0]
Type	Bitfield 16 bits
Description	For Modbus reading

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	-

MODBUS TABLE

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	-

MODBUS TABLE

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	-

MODBUS TABLE

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	-

MODBUS TABLE

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	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	-

MODBUS TABLE

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	Mains voltage unbalance level 1 active as an alarm
Address	[974.6]
Type	Bitfield 16 bits
Description	-

Variable	Mains 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	-

MODBUS TABLE

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	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	Mains voltage unbalance level 1 active as a fault
Address	[975.6]
Type	Bitfield 16 bits
Description	-

MODBUS TABLE

Variable	Mains 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	-

STATUSES

Variable	Fault
Address	[952.0]
Type	Bitfield 16 bits
Description	-

MODBUS TABLE

Variable	Mains 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	Mains breaker
Address	[952.4]
Type	Bitfield 16 bits
Description	For Modbus readings

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	-

MODBUS TABLE

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.

MODBUS TABLE

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	Mains breaker button
Address	[951.8]
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.

MODBUS TABLE

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

MODBUS TABLE

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	Mains breaker button inhibition
Address	[8102.8]
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

MODBUS TABLE

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