MDX PLUS J1939

Automatic mains failure unit

- Automatic Mains Failure
- Basic unit
- Configurable inputs / outputs
- Engine control
- Generator protection
- 6 displays + power plant diagram
- J1939 communication
- Modbus

The MDX PLUS J1939 is a comprehensive AMF unit for a single generating set operating in standby mode. The unit is controlled with front panel pushbuttons.

The MDX PLUS J1939 provides a comprehensive set of digitally adjustable timers, threshold levels, input and output configurations and operating sequences.

A BASIC UNIT WITH ADVANCED FEATURES

The MDX PLUS J1939 monitors mains phase voltages and controls the automatic starting, stopping and load transfer of the generating set in case of a mains failure. Once the generator is running, it monitors internal protections and external fault inputs. If a fault condition occurs, the unit shuts down the engine automatically and indicates the source of the failure with a warning lamp.
The AMF can manage 3 phase mains and 3 phase gensets. It provides 3 CT inputs on the genset side.

J1939 FEATURES

The MDX PLUS J1939 provides a CAN bus port with J1939 in order to communicate with electronic engines controlled by an ECU (standard J1939, Cummins, Perkins, Volvo...). The option also includes Modbus RTU communication (on RS232).

TELEMETRY AND REMOTE PROGRAMMING

The MDX PLUS J1939 module provides the user with extensive telemetry facilities via its standard RS-232 serial port. The unit can be connected either to a PC or to a modem for remote communication. The PC software offers local, Local Area Network (LAN), internet and modem operating capabilities. Note that the modem mode is also compatible with the LAN and internet modes, so that data may be distributed by the PC for reuse on the LAN or internet.
The PC program is used for parameter upload/download, remote monitoring, diagnostics and analysis.

CONFIGURABLE INPUTS/OUTPUTS

The unit has 7 configurable digital inputs, 3 configurable analog inputs and 2 configurable relay outputs (6 relay outputs in all).
MDX PLUS J1939 provides output extension possibilities for up to 16 digital outputs.

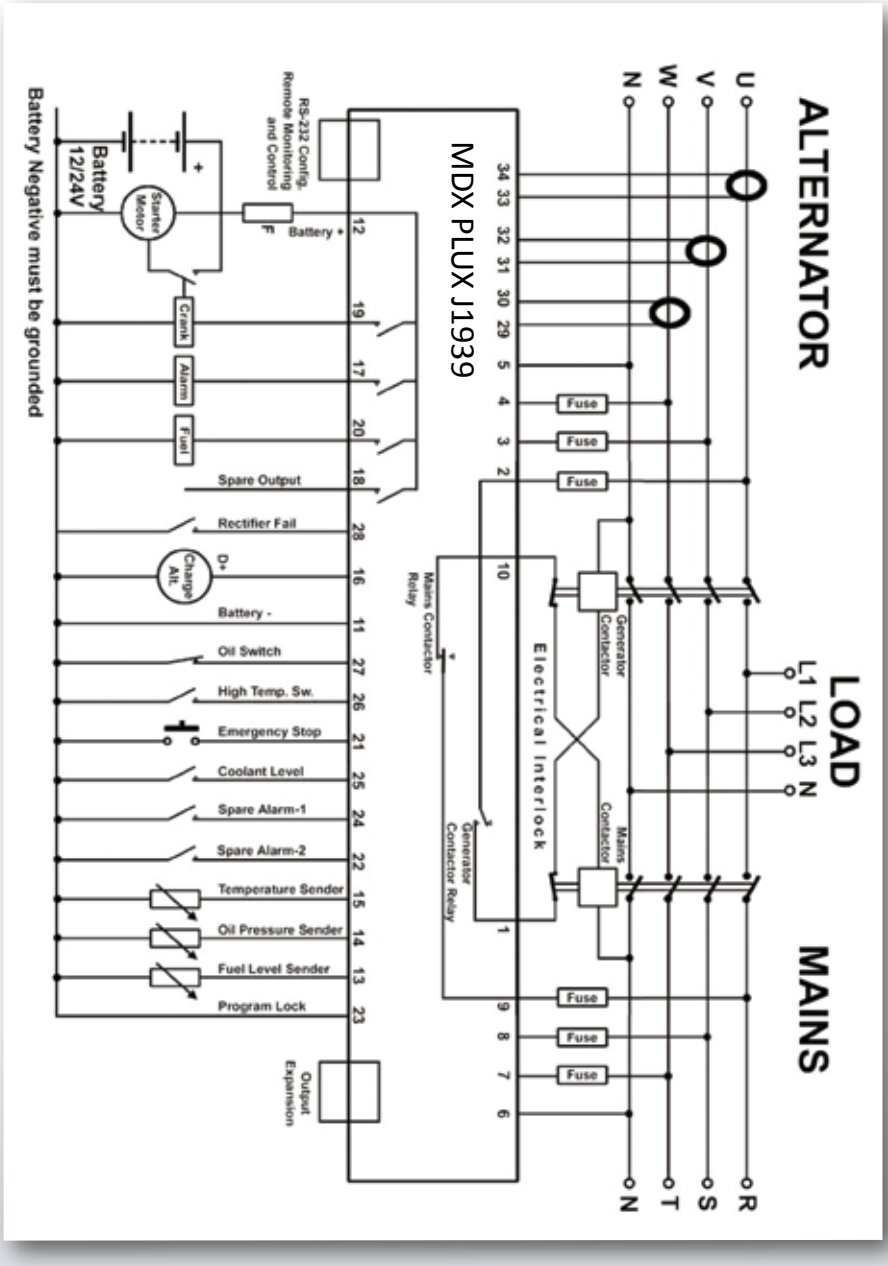
STATISTICS AND EVENT LOGGING

The unit provides event logging with a time stamp (last 12 events) and incremental counters about past genset performance:

- Engine hours run, engine hours to service
- Time to service, number of engine cranks
- Number of genset runs, number of gensets on load

FEATURES

- Automatic mains failure
- Engine control
- Generator protection
- Built in alarms and warnings
- 3 phase mains voltage inputs
- 3 phase genset voltage inputs
- 3 phase genset CT inputs
- Engine oil pressure measurement
- Engine coolant temperature measurement
- Fuel level measurement
- Genset active power measurement
- Genset power factor measurement
- Periodic maintenance request indicator
- Daily / weekly / monthly exerciser
- Event logging with time stamps
- Statistical counters
- Real time clock with battery back-up
- Weekly operation schedule
- On site adjustable parameters
- RS-232 serial port
- Remote start operation available
- Survives cranking dropouts
- Plug-in connection system for easy replacement



MEASUREMENTS

- Generator Volt: U-N
- Generator Amp: U
- Generator kW phase U
- Generator pf phase U
- Generator Frequency
- Mains Volts: R-N, S-N, T-N, R-S, S-T, T-R
- Battery voltage
- Engine coolant temperature, oil pressure

CHARACTERISTICS

Current, voltage and frequency

- Alternator voltage: 15-300 V-AC (Ph-N)
- Alternator frequency: 0-100 Hz.
- Mains voltage: 300 V-AC max. (Ph-N)
- Mains frequency: 50/60 Hz.
- DC supply range: 9.0 to 33.0 V-DC
- Typical standby current: 100 mA-DC
- Maximum operating cCurrent: 350 mA-DC
- Generator breaker relay output: 16 A / 250V
- Mains Breaker Relay Output: 16 A / 250V
- DC Relay Outputs: 10 A / 28V
- Charge excitation current: 54mA @ 12V-DC.

Component details

- Analog input range: 0-5000 ohms.
- Serial port: RS-232, 2400 bauds, 1 stop bit

Environment

- Operating temp.: -20 °C to 70 °C .
- Storage temp.: -30 °C to 80 °C .
- Maximum humidity: 95% non-condensing.
- Protection: IP65 for the front panel, IP30 for the rear.
- Case Material: High Temperature (110 °C)

Dimensions and weight

- Dimensions: 180x125x48mm
- Panel cut-out dimensions: 176x121 mm minimum.
- Weight: 460 g

Homologation

- EMC
- Low Voltage

PART NUMBER
A60V7

SOFTWARE
Rainbow 2.026

ASSOCIATED PRODUCTS
Complementary: GENSYS 2.0 DUOGEN