



AUTOMATIC MAINS FAILURE UNIT

AMF 2.0



DESCRIPTION

AMF2.0 automatic mains failure unit is a microprocessor based digital unit monitoring the 3 phases of the mains and controls the changeover of mains and generator contactors if a mains failure on any phase is detected. The module offers a very cost effective and space saving solutions as it is able to display all the parameters which are essential for the basic gen-set control. The module has 3 operation modes. Stop, test and Auto operation modes can be chosen via the push-buttons mounted on the front panel. While the module is in Stop mode, if the menu button is pressed, the 39 parameter settings, which are used for controlling the generator, can be adjusted. So the module can be adapted to the entire generator without the need of any other unit or module.

OPERATION PRINCIPLES

Monitoring and Indicators:

- L1-N mains voltage
- L2-N mains voltage
- L3-N mains voltage
- L12,L23,L31 mains voltage
- L1-N generator voltage
- Generator frequency
- By pressing the menu button in auto or test mode, parameters can be displayed on the unit.
- 8 failure indicators on the front panel
- All the status indicators on the front panel

OPERATION MODES:



Stop

The Stop button is used to stop the engine, to cancel the alarm and to reset the failure. And also in this mode, by pressing the menu button, the 38 parameter settings, which are used for starting, stopping, controlling and calibrating the generator, can be adjusted.



Auto

The Auto button is used for automatic load transfer. If a mains failure on any phase is detected, the load is switched off from the mains and the unit automatically will start the generator by using the parameters settings which are adjusted before. When the generator operates within the limits adjusted before, the load is transferred to the generator. When the mains supply has been restored, the unit will transfer the load back from the generator to the mains supply. The generator is stopped automatically by using the parameter settings. In case of a failure while operating, the unit will stop the generator automatically.



Test

The unit will start the generator without a mains failure, the load will not be transferred until a mains failure occurs.

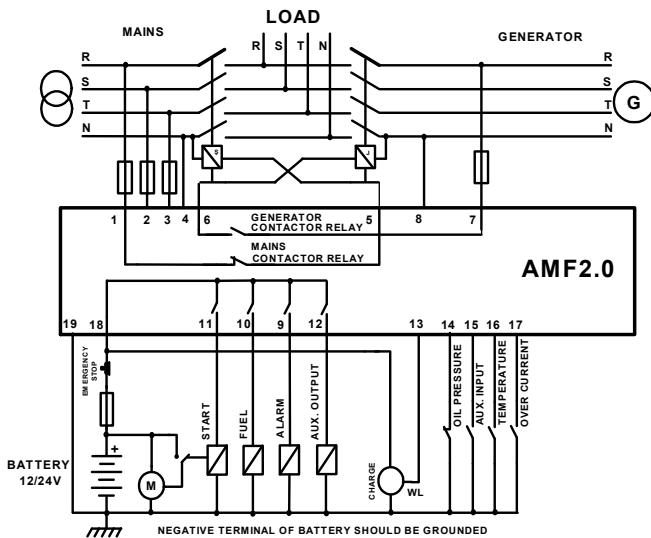
FEATURES

- Micro-processor based design
- Automatic engine starting and stopping
- Automatic load transfer
- Configurable via front panel
- Automatic shut down on fault condition
- Test mode
- Operate with cranking dropouts
- Preheat, auto ready and engine start outputs
- Stop/fuel solenoid selection
- 3 phase true RMS voltage measuring and monitoring
- Generator phase true RMS voltage measuring and monitoring
- Generator frequency measuring and monitoring
- Digitally adjustable low&high mains and generator voltage limits
- Digitally adjustable generator start timings
- Digitally adjustable generator overspeed /underspeed limits
- Digitally adjustable generator stop timings
- Digitally adjustable generator failure control timings
- Digitally adjustable auxiliary inputs specifications
- Digitally adjustable auxiliary outputs specifications
- Digitally adjustable preheat, cooling and load transfer timings
- Failure control and indicators
- Digitally adjustable sleep-mode selection
- Digitally adjustable measurement calibrations
- Digital display
- Low cost, small dimensions

FAILURES

- Start/stop failure
- Low oil pressure failure
- High engine temperature failure
- Overspeed/underspeed failure
- Auxiliary failure
- Over/under voltage failure
- Over current failure
- Charge fail warning

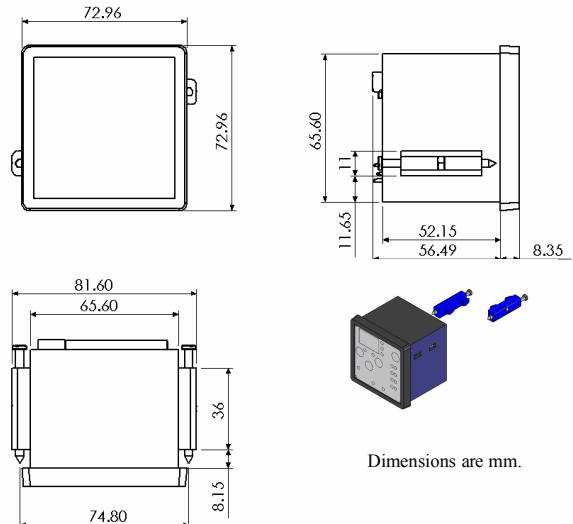
CONNECTIONS



SPECIFICATIONS

DC Supply	9-35VDC 30mA (stop mode) 90mA (auto mode) 130mA(maximum current)
Operating Temperature	-10°C / +70°C
Relative Humidity	%10-%95 non-condensing
Relay Outputs	Alarm,fuel,start and auxiliary outputs 6A/12-24VDC Generator and mains contactor outputs 10A / 250VAC
Frequency Measurement	1-99Hz
Voltage Measurement	50-300VAC
Measurement Accuracy	Phase Voltages : + / - %1 Generator Frequency : + / - 0.2Hz
Cranking Dropouts	0 V for 50ms.
Connection	Screw socket
Housing	High temperature proof PPO GF %20
Protection Class	IP 52 (Front side)
Weight	230 gr. (aprox.)
Dimensions (GxYxD)	72x72x62 mm
Panel cut out	68x68mm

DIMENSIONS AND MOUNTING



Dimensions are mm.

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