AMF2.0

ENKO Electronic Control Systems - IZMIR / TURKIYE

www.enkoelektronik.com

Automatic Mains Failure Controller for Gen-Sets

AMF2.0 offers all necessary control functions for single Generator/ Mains applications.

Efficient and simple control for single GenSet applications

Engine control and Mains side parameter controls are available and can be configured through the unit's program menu.

AMF2.0 is a full Automatic Mains Failure unit intended to be used for single Gen-Set applications. The controller can be used with single or three phase mains systems.

Full Generator control functions can be implemented through the unit program menu. The unit has a configuration parameter menu which can be accessed from the front panel. All engine parameters can be monitored and full engine protection is provided.

Cranking can be achieved manual or automatic, depending on the selected operation mode. Start of engine is detected automatically and crank relay is controlled accordingly.

The alternator values are also monitored and all values are measured and calculated as True RMS values, avoiding false voltage measurements due to high load harmonic contents, hence ensuring reliable operation. The AC voltage inputs are suitable up to 500Vac.

AMF2.0 is designed to fulfill all the required functions to control the load. Mains is monitored on all three phases and protection limits are programmable through the menu. There are three operation modes which the user can select from. Controller will control the load according to the selected mode.

All the measurement calibration can be made through the program menu and there is no need for any trimmer adjustments. The unit menu is protected with two-stage password, allowing user and experienced technician to reach appropriate menu parts.

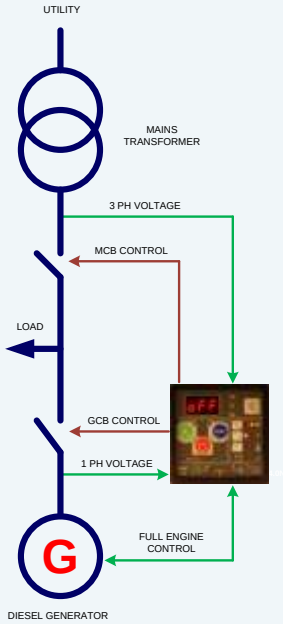
Main features:

- Full automatic mains failure control functions
- Full control and protection of engine and alternator
- Digital display for monitoring voltages and frequency
- Automatic control of MCB and GCB relays
- Automatic and Test operation options
- 4 configurable input and output ports for peripheral control
- Configuration menu with 44 parameters
- Digital calibration on measuring inputs
- Small housing for space saving applications

- **OFFERS ECONOMICAL SOLUTIONS FOR SINGLE GENSET APPLICATIONS**
- **FULL CONTROL and PROTECTION OF DIESEL ENGINE AND ALTERNATOR**
- **SINGLE DISPLAY FOR VOLTAGE AND FREQUENCY**
- **CONFIGURABLE AUXILIARY INPUTS AND OUTPUTS**

Technical specifications:

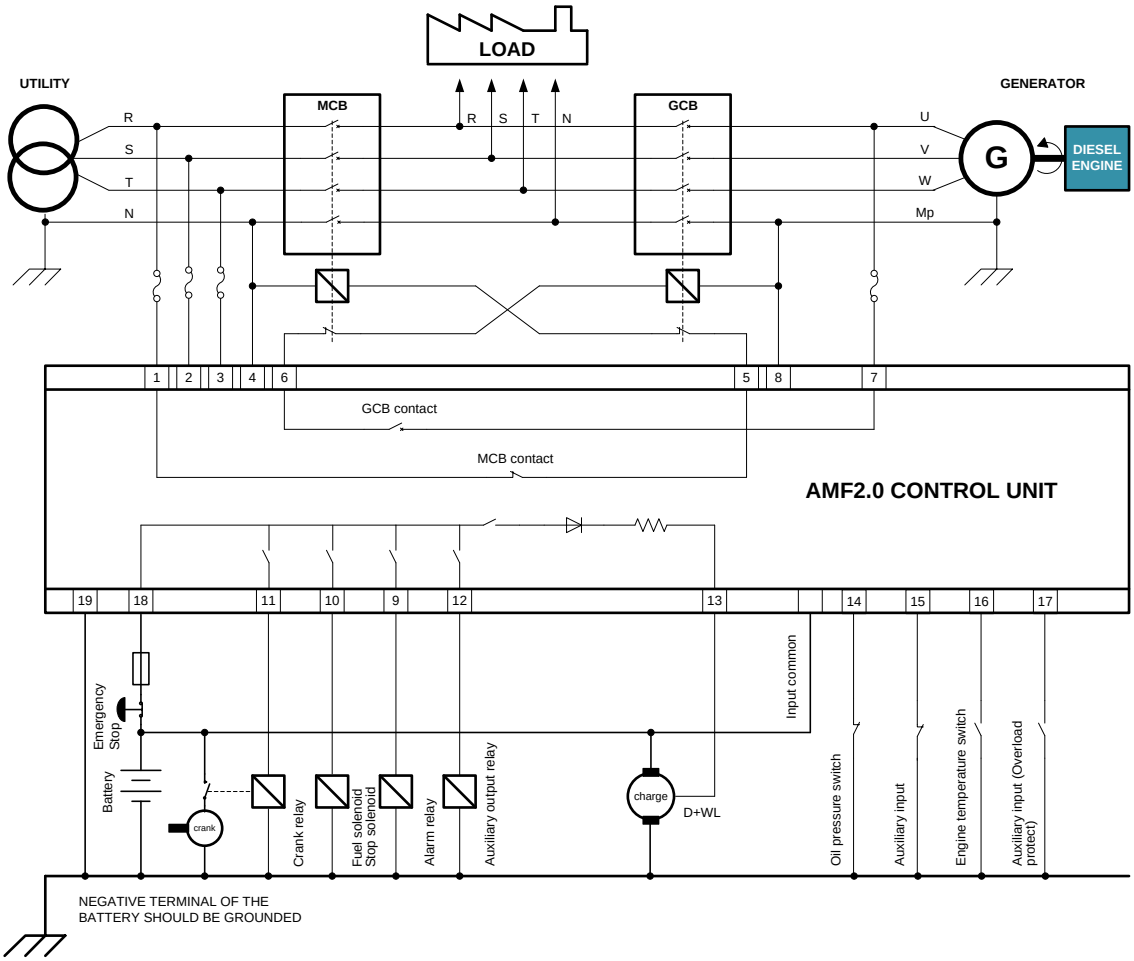
DC power supply:	9-35Vdc
Operating temperature:	-35°C to +70°C
Relative humidity:	20%rH to 99%rH, non condensing
AC voltage measurement:	20Vac to 500Vac phase to phase
Frequency measurement:	1.0Hz to 99.9Hz, ±0.1Hz
Auxiliary i/o:	1 input port, 1 output port with relay contact
Charge alternator excitation current:	80mA for 12Vdc systems, 160mA for 24Vdc systems
Measurement accuracy:	Phase voltages: ±2% of scale, Frequency: ±0.1Hz
Outputs:	Dry contact relay outputs (1x10A 250Vac, 3x6A 12-24Vdc)
Weight:	230 grams
Mounting:	72mmX72mm (panel cutout 67mmx67mm)
Protection class:	IP52 (front panel protection)



Additional features:

3 PHASE TRUE RMS MAINS VOLTAGE MEASUREMENT	√
SINGLE PHASE TRUE RMS GENERATOR VOLTAGE MEASUREMENT	√
PREHEAT FUNCTION BEFORE IGNITON	√
WIDE OPERATING TEMPERATURE RANGE (-35°C to +70°C)	√
IP52 PROTECTION CLASS (front panel protection)	√
CONFIGURABLE AUXILIARY I/O PORT	√

APPLICATION CONNECTION DIAGRAM



Typical connection diagram is shown and this is one of possible applications among many. The system is shown in 3 phase connection but can also be applied for single phase systems.

The configurable inputs and outputs can be programmed in order to adopt the controller to more specific applications. The controller is suitable for 12/24Vdc systems.

Care should be taken in order to connect the negative terminal of the battery to the gen-set chassis.

The controller can be connected for various applications.

The system offers ideal solution for single generator and mains control of the load.

AMF2.0 controller plastic housing is designed according to DIN norms. Mechanical dimensions are shown in the drawing.

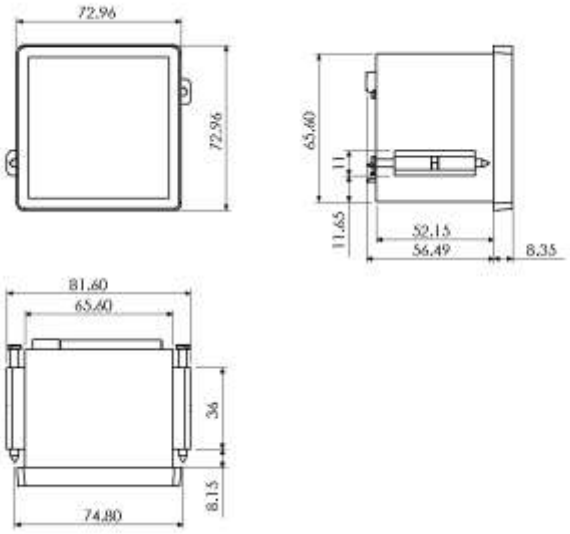
Plastic housing is made of NORYL (PPO) which provides high temperature resistance and good mechanical stability. The electrical characteristics of the housing is excellent.

The front panel is designed to comply with IP52 protection class. Embossed Lexan is used for front panel, which provides easy control of the buttons and clear reading of the digital values. It also provides long life for operation.

All components are SMD mounted, including the buttons and LED indicators. The use of mechanical switches for control buttons ensures reliable operation over long periods.

Inner construction is specially tailored for resistance against vibration . Also, special chemical treatment ensures reliable operation in high humidity environments.

Mechanical dimensions



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