AMF4.2

ENKO Electronic Control Systems - IZMIR / TURKIYE

www.enkoelektronik.com

Automatic Mains Failure Controller for Gen-Sets

AMF4.2 offers flexible control of load power, fed from mains and generator bus-bars.

Friendly user interface with analog bar graph displays

AMF4.2 controller includes two analog bar-graph displays to indicate direct readings from engine temperature and oil pressure gauges. These values can also be read on the digital displays.

AMF4.2 Automatic Mains Failure (AMF) control module from ENKO offers flexible management of Load and Diesel Generator functions. The MCB and GCB relays can be controlled efficiently, allowing minimum load break, with single Mains/Gen-Set applications.

The controller offers 5 digital displays for monitoring system values. All voltages and currents are measured as TRMS values, with better than 1% full scale accuracy.

All three phase voltages of mains and generator side are measured as well as the load phase currents. This allows optimum control of load supply for safe operation. The illuminated mimic diagram allows easy monitoring and function controls on the front panel.

All system parameters can be configured through an extensive menu. All the i/o ports can be configured and set to match the required application characteristics and all measuring analog inputs can be calibrated, using the system menu. Preset temperature and pressure gauge characteristics can also be selected direct from the menu.

The controller also includes a "Remote Start" input so that it can be interfaced with other control systems. Remote start characteristics can also be set through the system menu.

The controller is designed and manufactured according to EN60600 and complies with CE regulations.

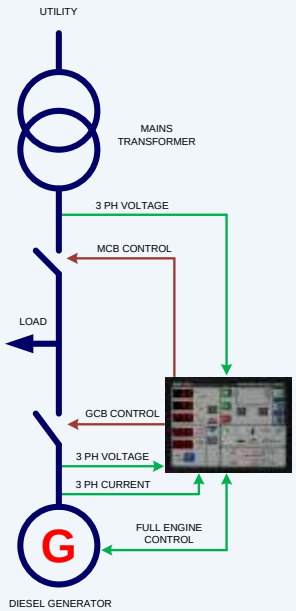
Main features:

- Full automatic mains failure control functions
- 5 digital displays and 2 analog bar-graph displays
- Automatic independent control of MCB and GCB relays
- Automatic, Manual and Test operation options
- Power control and metering function
- Fully configurable inputs and outputs
- Alarm logging and service time control functions
- Configuration menu with 190 parameters
- Digital calibration on voltage and current measurement inputs
- Periodic service timer

- **OFFERS ECONOMICAL SOLUTIONS FOR SINGLE GENSET APPLICATIONS**
- **SIMULTANEOUS MONITORING OF 5 DIGITAL VALUES**
- **ANALOG MONITORING FOR ENGINE TEMPERATURE AND OIL PRESSURE**
- **FULLY CONFIGURABLE AUXILIARY INPUTS AND OUTPUTS**

Technical specifications:

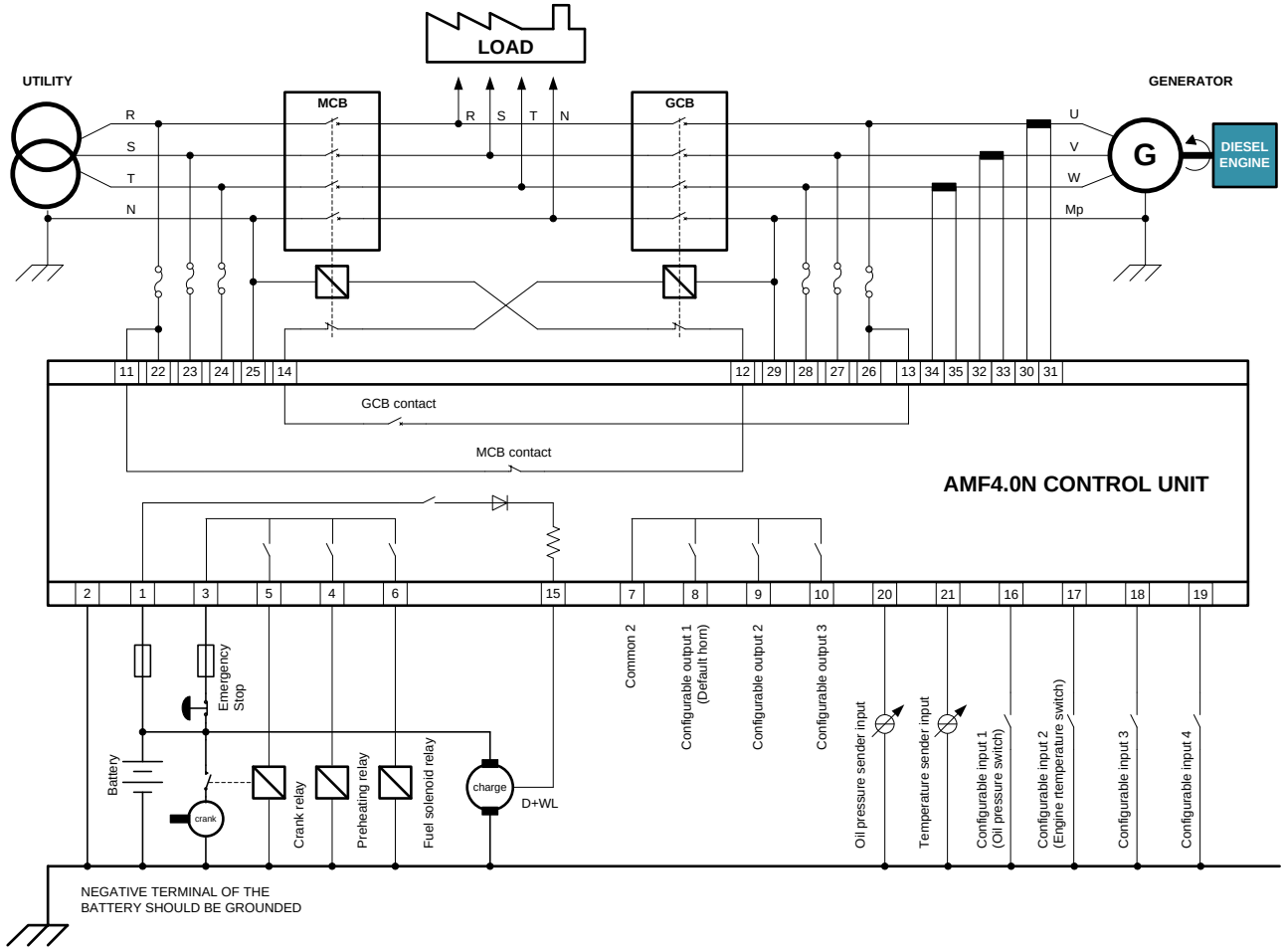
DC power supply:	9-35Vdc@140mA (relays off position)
Operating temperature:	-35°C to +70°C
Relative humidity:	20%rH to 99%rH, non condensing
AC voltage measurement:	20Vac to 500Vac phase to phase
Frequency measurement:	1.0Hz to 99.9Hz, ±0.1Hz
Current measurement:	x/5A current transformer
Charge alternator excitation current:	80mA for 12Vdc systems, 160mA for 24Vdc systems
Measurement accuracy:	Phase voltages: ±2% of scale, Frequency: ±0.1Hz
Auxiliary i/o:	4 configurable inputs 3 configurable outputs (relay contact outputs)
Weight:	600 grams
Mounting:	186x138 panel cutout
Protection class:	IP52 (front panel protection)



Additional features:

3 PHASE TRUE RMS VOLTAGE AND CURRENT MEASUREMENT	√
AUTOMATIC, MANUAL AND TEST OPERATION MODES	√
ACTIVE POWER MEASUREMENT AND CONTROL	√
WIDE OPERATING TEMPERATURE RANGE (-35°C to +70°C)	√
IP52 PROTECTION CLASS (front panel protection)	√
ANALOG BAR-GRAPH DISPLAY FOR ENGINE TEMPERATURE AND OIL PRESSURE	√
PREHEAT FUNCTION BEFORE IGNITON	√

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.

Engine preheating is also available for manual and automatic applications.

Flexible connection allows AMF4.2 to be used in many applications.

It allows simple and economic solutions for single Gen-Set operations.

AMF4.2 controller plastic housing is designed according to DIN norms. Mechanical dimensions are shown in the drawing.

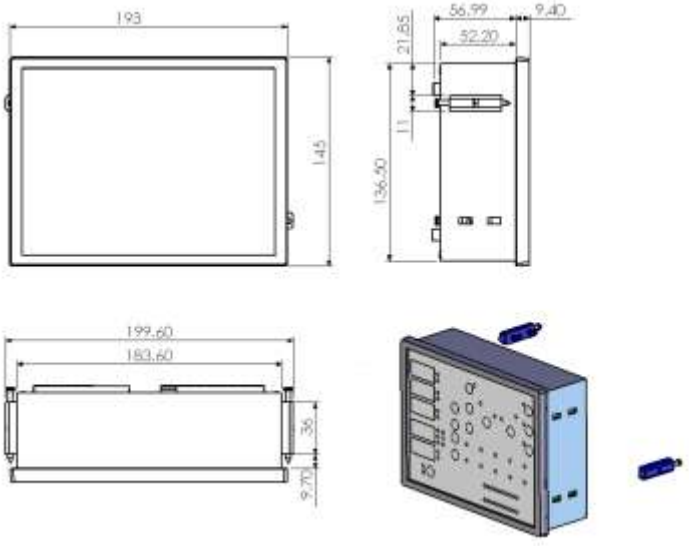
Plastic housing is made of NORYL (PPO) which provides high temperature resistance and good mechanical stability. The electrical characteristics of the housing is excellent.

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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