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AMF-S

Automatic Mains Failure Control Panels



Product Description:

AMF-S control panels are designed and manufactured for compact generator applications, where Generator and Mains (Utility) parameters can be configured by the user according to their specific application requirements. AMF-S is the smallest size "Auto Mains Failure Control Module" available on the market.

"S" series AMF Modules provide all necessary control features for "stand-alone" generator applications, and they are equipped with high-resolution 1.4" colour LCD graphical display for easy reading of Generator and Mains data under all environmental conditions. All parameters and system data are displayed in alphanumeric and graphical format. This feature enables easy viewing and understanding of generator status and alarm conditions.

3-phase mains voltage is measured for automatic start of the generator if the mains voltage falls outside set limits. Engine cranking is fully automatic, and all engine parameters are controlled during cranking and running period. 2-phase generator voltage is also measured to control power generation and load management. Load is automatically transferred back to Mains once it is restored with the safe limits.

Monitoring engine speed, coolant temperature and oil pressure continuously provide safe protection and operation of the engine during power generation phase. Also, alternator voltage and frequency are measured for clean power supply to the load. All alarm conditions and warning messages and values are displayed on the graphical display in alpha-numeric and icon formats.

The control module is equipped with suitable digital and analogue inputs and outputs such that, it can be configured for many applications, including stand-by generator applications including lighting tower applications.

Remote start input can be used to integrate the control module with any external control unit.

Integrated CAN bus enables the control module to connect directly to the engine ECU J1939 data bus so that, critical engine data can be read and utilised by the control panel. This feature enables secure connection to all types of engines.

USB Com port is available to configure all the parameters of the control module without connecting the unit to a power source. Unit can be connected to any PC via USB cable and all operation parameters can be configured and saved directly into the control module.

Module front panel is manufactured with silicone rubber keypad for harsh environmental conditions and high IP protection. Plastic frame has built-in sealing gasket to ensure IP65 protection class on the front side of the module.

Unit can operate over a wide range of temperature and humidity conditions. Plug-in type connectors on the back side of the panel reduces the installation and servicing time.

These units also comply to a range of safety and quality standards, which a

MAIN FEATURES:

- ✓ Smallest size AMF control panel on the market,
- ✓ 1.4" Graphical colour display for indication of all mains and generator parameters and alarms,
- ✓ Automatic transfer of LOAD between Mains and Generator,
- ✓ Fully automatic cranking and protection of the engine,
- ✓ 3-phase mains voltage reading,
- ✓ 2-phase generator voltage reading,
- ✓ 3 Analogue inputs
- ✓ D+/WL analogue input
- ✓ 2 Digital inputs
- ✓ 6 Digital solid-state (failsafe) outputs
- ✓ 6-36Vdc wide range DC power input
- ✓ CAN Bus J1939 com port for connection to engine ECU or peripheral controllers
- ✓ USB2.0 type-B configuration port
- ✓ Plug-in type signal connectors
- ✓ Remote-start function input
- ✓ Silicone rubber keypad with IP65 protection class from the front side, with sealing gasket,
- ✓ EMC immunity and emissions compatibility: EN61000-6-2 EN61000-6-4
- ✓ Electrical Safety: EN60950
- ✓ Temp. and Humidity: EN60068-2-30
- ✓ Flammability: UL94
- ✓ Overall dimensions: 82mmx94mmx50mm
- ✓ Panel cutout: 68mmx80mm

Technical Specifications	Value	Description
DC Power input voltage:	8Vdc to 32Vdc	Maximum power dissipation is <2.5W
Display:	1.4" LCD Colour graphic	TFT type with high resolution, high brightness,
Keypad:	Silicone rubber	IP65 protection from the front side (with gasket)
Digital inputs:	2 configurable inputs	Active low input connections (sink type)
Analogue inputs:	4 analogue sender inputs	Temperature (NTC, KTY) and Pressure (resistive)
Digital outputs:	6 digital outputs	Solid-State fail-safe outputs (active sink logic)
Communication ports:	USB2.0 Type-B	Parameter configuration
	CAN Bus J1939	Peripheral control network connection
Operating temperature:	-10°C to +60°C	UV resistant keypad and enclosure
Storage temperature:	-25°C to +85°C	
Operating humidity:	10%RH to 97%RH	Non-condensing
EMC compatibility:	EN61000-1-2/3/4	Industrial level
Safety:	CATIII, 300V	
Vibration & shock:	MIL810G	Transportation
Protection class:	IP65	From front side (with gasket)
	IP00	From back side
Overall dimensions:	94 x 82 x 50	Measurements are in mm
Panel cutout:	80 x 68	
Mounting type:	Panel mounting	With screw type retention clamps
Weight:	140gr	Approximate weight

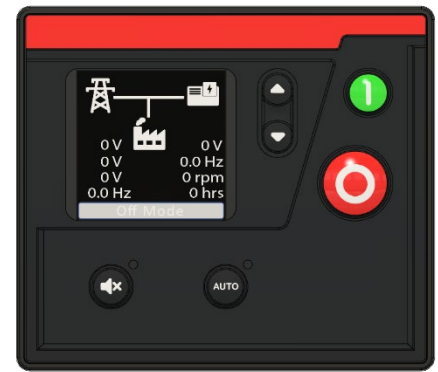


Figure 1: AMF-S Front side view

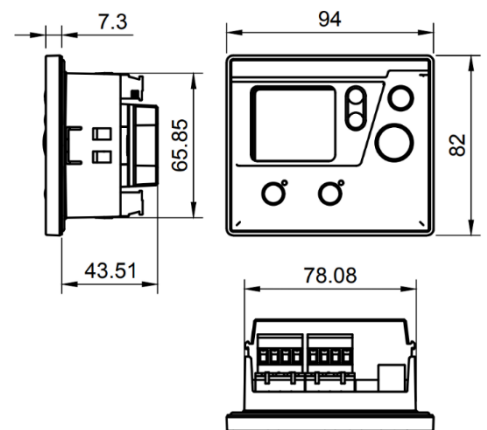
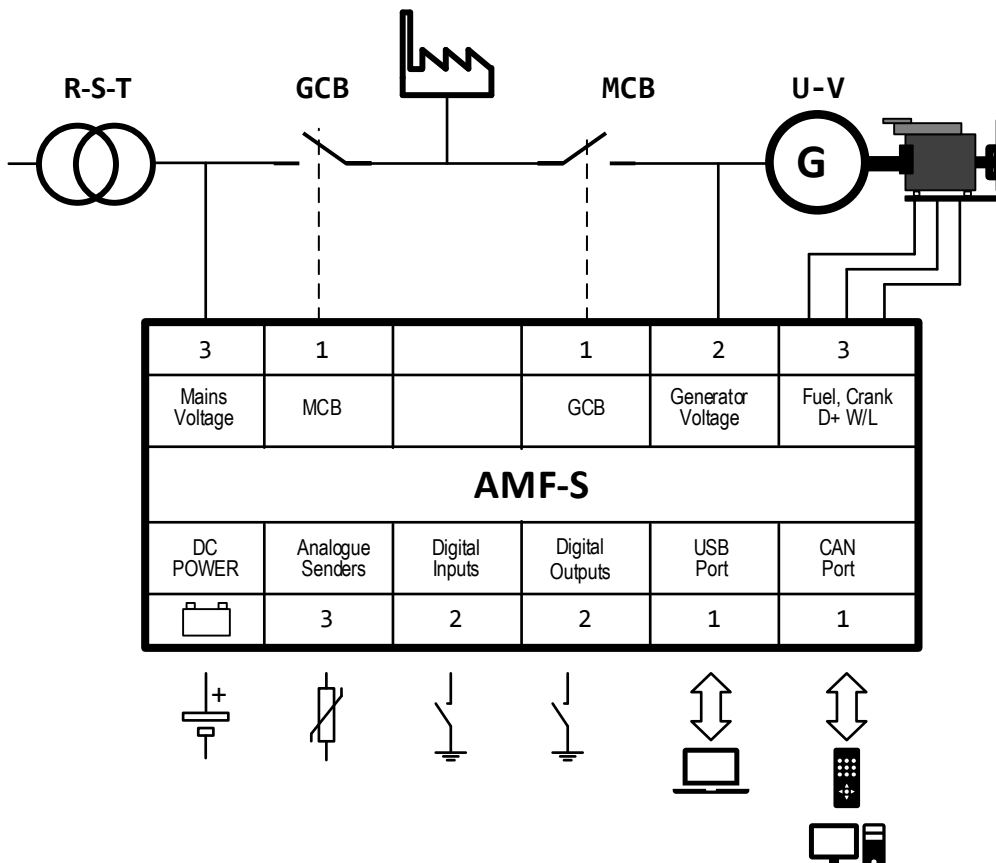


Figure 2: AMF-S Dimensions (mm)



UL94
V-2

Connection Diagram:



Compliance:

AMF-S series control panels are tested and compliant to CE regulations for emitted and conducted RFI interference, according to EN61000-6-4 class-A. Immunity is tested against EN61000-6-2. Vibration: EN60068-6-2 Dielectric strength: IEC255, Flammability: UL94, Safety: UL508