

# InteliLite AMF20



Order code: IL3AMF20BAA

## Controller for single gen-set applications

# Datasheet

### Product description

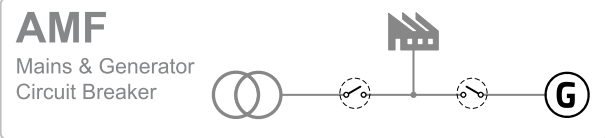
- ▶ Single gen-set controller for Stand-by and Prime-power applications
- ▶ Direct communication with EFI engines
- ▶ Total remote monitoring and control

### Key features

- ▶ Easy to install, configure and use
- ▶ Wide range of communication capabilities including:
  - connection via RS232, RS485, CAN and on board USB
  - internet access using Ethernet, GPRS or 4G
  - support for Modbus and SNMP protocols
- ▶ Internal PLC support with PLC editor and monitor included in LiteEdit
- ▶ Cloud-based monitoring and control
- ▶ Active SMS and emails in different languages
- ▶ SNMP traps
- ▶ 2x 10 A binary outputs for cranking and fuel solenoid
- ▶ Option for up to 8 additional binary inputs/outputs
- ▶ Flexible event based history with up to 350 events
- ▶ Tier 4 final support
- ▶ Automatic temperature based cooling/heating
- ▶ Comprehensive gen-set protections

- ▶ Multipurpose flexible timers
- ▶ True RMS measurement

### Application overview



## Technical data

### Power supply

<b>Power supply range</b>	8-36 VDC
<b>Power consumption</b>	394 mA / 8 VDC 255 mA / 12 VDC 140 mA / 24 VDC 97 mA / 36 VDC
<b>Fusing</b>	2 A (without BOUT consumption nor extension modules)
<b>Max. Power Dissipation</b>	3,5W

### Operating conditions

<b>Operating temperature</b>	-20 °C to +70 °C
<b>Storage temperature</b>	-30 °C to +70 °C
<b>Operating humidity</b>	95 % w/o condensation
<b>Vibration</b>	5-25 Hz, ± 1,6 mm 25-100 Hz, a = 4 g
<b>Shocks</b>	a = 500 m/s <sup>2</sup>

### Voltage measurement

<b>Measurement inputs</b>	3ph-n Gen voltage 3ph-n Mains
<b>Measurement range</b>	277 V
<b>Max. allowed voltage</b>	350 V
<b>Accuracy</b>	1 %
<b>Frequency range</b>	40-70 Hz (accuracy 0.1 Hz)
<b>Input impedance</b>	0,72 MΩ ph-ph 0,36 MΩ ph-n

### Current measurement

<b>Measurement inputs</b>	3ph-n Gen voltage
<b>Measurement range</b>	5 A
<b>Max. allowed current</b>	10 A
<b>Accuracy</b>	1,5 % for full temperature range (1 % from 0 °C to 50 °C)
<b>Input impedance</b>	< 0,1 Ω

### Binary inputs

<b>Number</b>	7, non-isolated
<b>Close/Open indication</b>	0-2 VDC close contact >6 VDC open contact

### Binary outputs

<b>Number</b>	2 high current output, non-isolated 5 low current output, non-isolated
<b>Max. current</b>	10 A for 10 s, 4 A long term 0,5 A
<b>Switching to</b>	positive supply terminal

### Analog inputs

<b>Number</b>	3 non-isolated
<b>Type</b>	Resistive
<b>Resolution</b>	0,1 Ω
<b>Range</b>	0-2500 Ω
<b>Input impedance</b>	800 Ω
<b>Accuracy</b>	±2 % from range in range 0-2500 Ω ±1,5 kΩ in range 2,5-15 kΩ

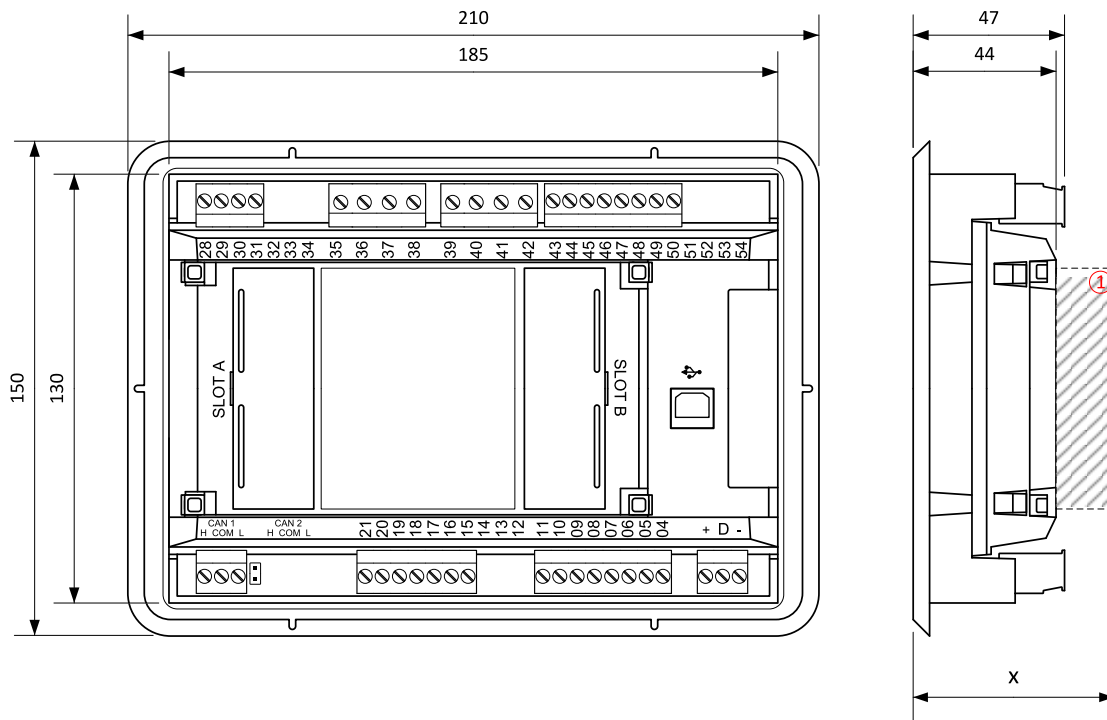
### Magnetic pick-up

<b>Voltage input range</b>	4 Vpk-pk to 50 Vpk-pk in range 4 Hz to 1 kHz 6 Vpk-pk to 50 Vpk-pk in range 1 kHz to 5 kHz 10 Vpk-pk to 50 Vpk-pk in range 5 kHz to 10 kHz
<b>Frequency input range</b>	4 Hz to 10 kHz
<b>Frequency measurement tolerance</b>	0,2 % from range 10 kHz

### Communications

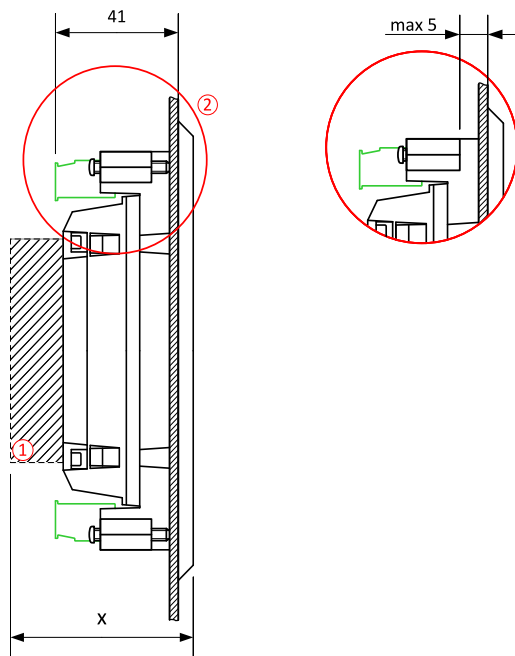
<b>USB port</b>	Non-isolated
<b>CAN 1</b>	CAN bus, 250 kbps, max 200 m, 120 Ω termination option non-isolated

## Dimensions, terminals and mounting



**Note:** Dimension x depends on extension module.

### Panel door mounting



### Overview of parameter x

Plug-in module	Parameter x [mm]
CM-RS232-485	105 @ RS232 / 62 @ RS485
CM-Ethernet	95
USB	85
CM-GPRS	Depends on connector of antenna
EM-BIO8	62
CM-4G-GPS	Depends on connector of antenna

**Note:** The controller is to be mounted into panel doors as a standalone unit using provided metal holders. The requested cut-out size is 187x132 mm. Use the screw holders delivered with the controller to fix the controller into the door.

## Available extension modules

Product	Description	Order code
CM-4G-GPS	GSM modem / 4G wireless internet and GPS locator	CM14GGPSXBX
CM-Ethernet	Ethernet interface	CM2ETHERXBX
CM-GPRS	GSM modem / GPRS wireless internet	CM2GPRSXXBX
CM-RS232-485	Dual port interface	CM223248XBX
EM-BIO8-EFCP	8 additional binary inputs/outputs; current measurement	EM2BIO8EXBX

## Functions and protections


The described product fully supports the following functions and protections as defined by ANSI (American National Standards Institute):

Description	ANSI code	Description	ANSI code
Over voltage	59	Load shedding	32P
Under voltage	27	Overload	32
Voltage asymmetry and Phase rotation**	47	Power factor	55
Over frequency	81H	Temperature	49T
Under frequency	81L	Gas (fuel) level	71
Over current*	50 + 51		

\* Short current only

\*\* Fixed setting

## Certificates and standards

<ul style="list-style-type: none"> <li>▶ EN 61000-6-2</li> <li>▶ EN 61000-6-4</li> <li>▶ EN 61010-1</li> <li>▶ EN 61000-2-1 (-20 °C/16 h for std version)</li> <li>▶ EN 61000-2-2 (70 °C/16 h)</li> <li>▶ EN 61000-2-6 (2÷25 Hz / ±1,6 mm; 25÷100 Hz / 4,0 g)</li> <li>▶ EN 61000-2-27 (a=500 m/s<sup>2</sup>; T=6 ms)</li> <li>▶ EN 61000-2-30</li> <li>▶ EN 60529 (front panel IP65, back side IP20)</li> </ul>	
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