ComAp
The heart of smart control

InteliLite AMF20

Order code: IL3AMF20BAA

Controller for single gen-set applications

Datasheet

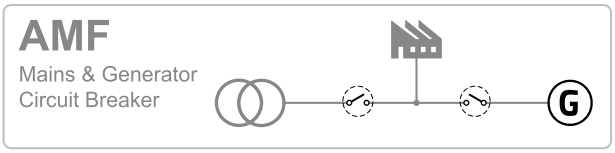
Product description

- 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

Power supply range	8-36 VDC
Power consumption	394 mA / 8 VDC 255 mA / 12 VDC 140 mA / 24 VDC 97 mA / 36 VDC
Fusing	2 A (without BOUT consumption nor extension modules)

Operating conditions

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

Voltage measurement

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

Current measurement

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

Binary inputs

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

Binary outputs

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

Analog inputs

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

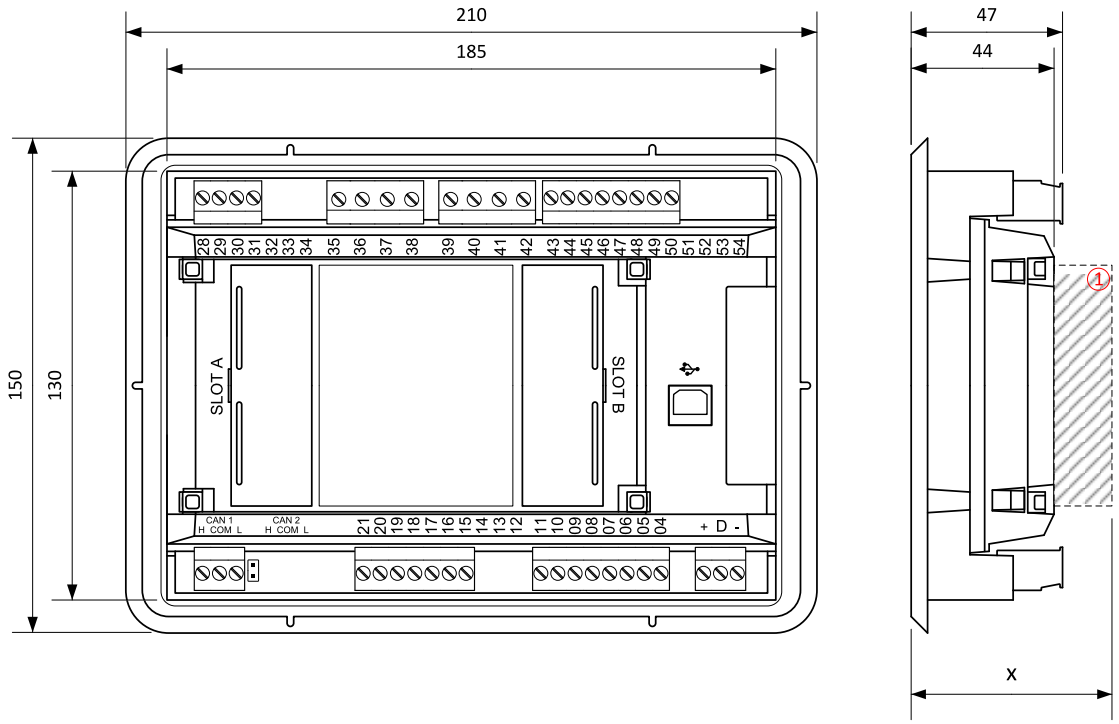
Magnetic pick-up

Voltage input range	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
Frequency input range	4 Hz to 10 kHz
Frequency measurement tolerance	0,2 % from range 10 kHz

Communications

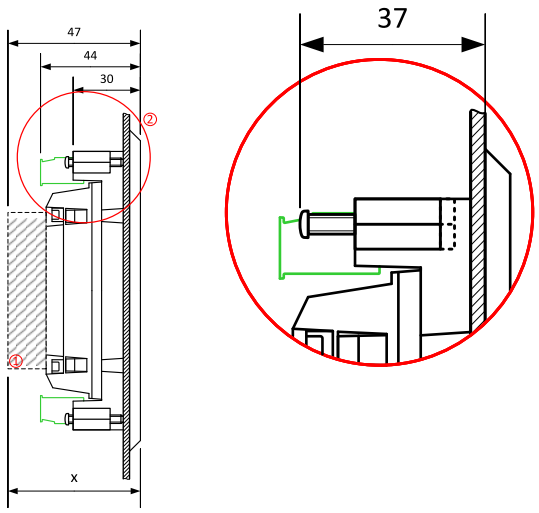
USB port	Non-isolated
CAN 1	CAN bus, 250 kbps, max 200 m, 120 Ω termination option non- isolated

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	Descritption	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	**Earth fault current**	50N + 64
Current unbalance	46		

* Short current only

** Fixed setting

Certificates and standards

- EN 61000-6-1
- EN 61000-6-2
- EN 61000-6-3
- EN 61000-6-4
- EN 61010-1
- EN 61000-2-1 (-20°C/16h for std version)
- EN 61000-2-2 (70°C/16h)
- EN 61000-2-6 (2÷25Hz / ±1,6mm; 25÷100Hz / 4,0g)
- EN 60068-2-2(a=500m/s^2)
- EN 60068-2-30(25/55/25°C; humidity at 97% ; 2 cycles)
- EN 60529 (front panel IP65, back side IP20)
- IEC61010-2-030:2010/Measerument category II

CE

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