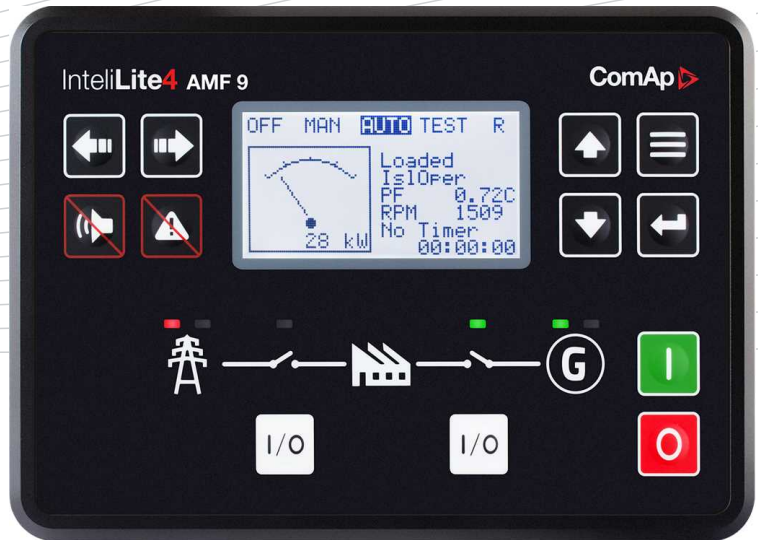


InteliLite 4 AMF 9



Order code: IL4AMF9XBAA

Controller for single gen-set applications

Datasheet

Product description

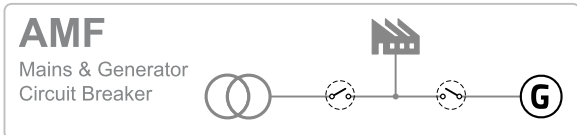
- ▶ Single Gen-set controller for stand-by and prime-power applications
- ▶ All-in-one intuitive & powerful PC tool for configuration/monitoring/control, locally or remotely
- ▶ Easy to install, configure and use

Key features

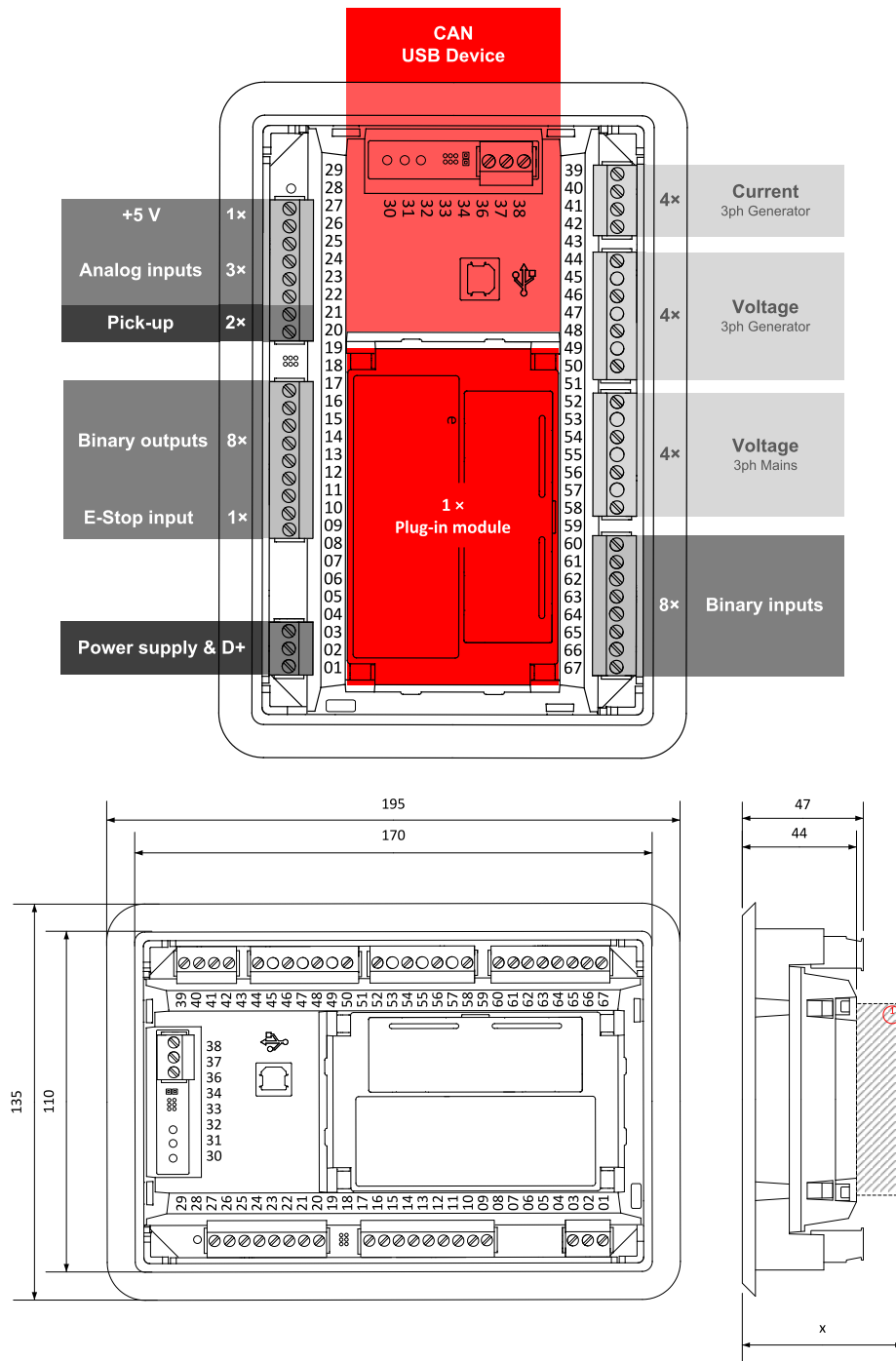
- ▶ Stand-by and prime-power application in one unit
- ▶ 8 binary outputs, 8 + 1 binary inputs, 3 analog inputs (U/I/R)
- ▶ +5 V output reference for analog inputs
- ▶ 2 high-current E-Stop binary outputs
- ▶ 1 slot for extension plug-in module (Modbus, Internet, SMS, inputs/outputs)
- ▶ Extension CAN modules
- ▶ ECU support (Tier 4 Final, Stage V)
- ▶ RTC with battery back-up (full calendar)
- ▶ Power over USB for controller configuration
- ▶ Zero power mode
- ▶ True RMS measurement
- ▶ In-built PLC, complemented with a PLC monitoring tool in InteliConfig
- ▶ Full remote communications support (AirGate 2.0, WSV)
- ▶ Internet access using Ethernet / 4G, Modbus TCP/RTU, SNMP v1/v2c
- ▶ Active SMS and emails
- ▶ Detailed history log with up to 150 records
- ▶ Dual Mutual Standby application support
- ▶ Remote display

- ▶ User setpoints and protections
- ▶ 5 languages in the controller & Translator functionality
- ▶ User Access Management
- ▶ Cyber security improvement
- ▶ Alternative configurations
- ▶ Multi-purpose schedulers
- ▶ 3 maintenance timers
- ▶ Modbus register mapping possibility
- ▶ Fuel pump management
- ▶ Run Hours source selector
- ▶ Cut-out: 172 × 112 mm

Application overview



Dimensions, terminals and mounting



Note: The final depth of the controller depends on the selected plug-in module – it can vary between 41 mm and 56 mm. Mind also the size of connectors and cables (e.g. in case of RS232 connector, add about 60 mm more for standard RS232 connector and cable).

Note: The controller is to be mounted into panel doors as a standalone unit using provided holders. The requested cutout size is 172 × 112 mm. Use the screw holders delivered with the controller to fix the controller into the door.

Power supply

| | |
|-------------------------------------|--------------------------|
| Power supply range | 8-36 VDC |
| Power consumption (without modules) | 2.5 W |
| RTC battery | Replaceable (3 V) |
| Fusing power | 4 A w/o BOUT consumption |
| E-Stop fusing | 10 A |
| Max. Power Dissipation | 7 W |

Operating conditions

| | |
|---|---|
| Protection degree (front panel) | IP 65 |
| Operating temperature | -20 °C to +70 °C |
| Storage temperature | -30 °C to +80 °C |
| Operating humidity | 95 % non-condensing (EN 60068-2-30) |
| Vibration | 5-25 Hz, ± 1.6 mm 25-100 Hz, a = 4 g |
| Shocks | a = 500 m/s ² |
| Surrounding air temperature rating 70 °C Suitable for pollution degree 2 | |

D+

| | |
|-------------------------|------------|
| Max. output current | 250 mA |
| Charging fail threshold | Adjustable |

Voltage measurement

| | |
|---|---|
| Measurement inputs | 3ph-n Gen voltage , 3ph-n Mains |
| Measurement range | 10-277 V AC / 10-480 V AC (EU) 10-346 V AC / 10-600 V AC (US/Canada) |
| Linear measurement and protection range | 350 V AC Ph-N 660 V AC Ph-Ph |
| Accuracy | 1 % |
| Frequency range | 30-70 Hz (accuracy 0.1 Hz) |
| Input impedance | 0.72 MΩ ph-ph , 0.36 MΩ ph-n |

Display

| | |
|------------|-----------------------------|
| Type | Build-in monochromatic 3.2" |
| Resolution | 132 × 64 px |

Communications

| | |
|------------|--|
| USB Device | Non-isolated type B connector |
| CAN 1 | Non-isolated, 250 / 50 kbps, Terminator impedance 120 Ω |

Current measurement

| | |
|----------------------|--|
| Measurement inputs | 3ph Gen current |
| Measurement range | 5 A |
| Max. allowed current | 10 A |
| Accuracy | ±20 mA for 0-2 A; 1 % of value for 2-5 A |
| Input impedance | <0.1 Ω |

E-Stop

| |
|--|
| Dedicated terminal for safe E-Stop input. Physical supply for binary outputs 1 & 2. |
|--|

Binary inputs

| | |
|-----------------------|--|
| Number | 8 |
| Close/Open indication | 0-2 VDC close contact 6-36 VDC open contact |

Binary outputs

| | |
|--------------|----------------------------|
| Number | 8 |
| Max. current | BO1,2 = 5 A; BO3-8 = 0.5 A |
| Switching to | positive supply terminal |

Analog inputs

| | |
|----------|--|
| Number | 3, switchable (R/U/I) |
| Range | R = 0-2500 Ω; U = 0-10 V; I = 0-20 mA |
| Accuracy | R: ±2 % from value ±5 Ω in range 0-250 Ω R: ±4 % from value in range 250 Ω-2500 Ω U: 1 % from value ±100 mV I: 1 % from value ±0.2 mA |

+5 V Power supply output

| | |
|--------------|-------|
| Max. current | 45 mA |
|--------------|-------|

Magnetic pickup

| | |
|---------------------------------|--|
| 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 to 5 kHz 10 Vpk-pk to 50 Vpk-pk in range 5 to 10 kHz |
| Frequency input range | 4 Hz to 10 kHz |
| Frequency measurement tolerance | 0.2 % from measured value |

Available plug-in modules

| Product | Description | Order code |
|--------------|--|-----------------------------|
| CM-RS232-485 | Dual port interface | CM223248XBX |
| CM2-4G-GPS | 4G & GPS plug-in communication module | CM24GGPSXBX |
| CM3-Ethernet | Internet / Ethernet plug-in communication module | CM3ETHERXBX |
| EM-BIO8-EFCP | 8 additional binary inputs/outputs | EM2BIO8EXBX |

Note: Controller has 1 slot for plug-in modules.

Available CAN modules

| Product | Description | Order code |
|--------------|--|-----------------------------|
| IGL-RA15 | CAN remote annunciator with 15 LEDs | EM2IGLRABAA |
| Intel AIN8 | CAN module with 8 analog inputs | I-AIN8 |
| Intel IO8/8 | CAN module with 8 binary inputs and 8 binary outputs | I-IO8/8 |
| IGS-PTM | CAN module with 8 binary inputs, 8 binary outputs, 4 analog inputs and 1 analog output | IGS-PTM |
| Intel AIN8TC | CAN module with 8 analog inputs dedicated for thermocouple sensors only. | I-AIN8TC |
| Intel AIO9/1 | CAN module with analog inputs and outputs – designed for DC measurement. | I-AIO9/1 |

Functions and protections

Support of functions and protections as defined by ANSI (American National Standards Institute):


| Description | ANSI code | Description | ANSI code |
|---|-----------|---------------------------------|-----------|
| Master unit | 1 | Voltage unbalance | 47 |
| Stopping device | 5 | Incomplete sequence relay | 48 |
| Multi-function device | 11 | Overcurrent | 50/50TD |
| Overspeed | 12 | Earth fault** | 50G |
| Underspeed | 14 | Overcurrent IDMT | 51 |
| Starting-to-running transition contractor | 19 | AC circuit breaker | 52 |
| Thermal relay | 26 | Overvoltage | 59 |
| Undervoltage | 27 | Pressure switch | 63 |
| Annunciator | 30 | Liquid level switch | 71 |
| Overload(real power) | 32P | Alarm relay*** | 74 |
| Reverse power | 32R | Reclosing relay | 79 |
| Master sequence device | 34 | Overfrequency | 81O |
| Unit sequence starting* | 44 | Underfrequency | 81U |
| Current unbalance | 46 | Auto selective control/transfer | 83 |

*Dual-operation

**Extension module EM-BIO8-EFCP required

*** extension module IGL-RA15 required

Certifications and standards

| | | |
|---|--|---|
| <ul style="list-style-type: none"> ▶ EN 61000-6-2 ▶ EN 61000-6-4 ▶ EN 61010-1 ▶ EN 60068-2-1 (-20 °C/16 h) ▶ EN 60068-2-2 (70 °C/16 h) | <ul style="list-style-type: none"> ▶ EN 60068-2-6 (2±25 Hz / ±1,6 mm; 25±100 Hz / 4.0 g) ▶ EN 60068-2-27 (a=500 m/s²; T=6 ms) ▶ EN 60068-2-30:2005 25/55°C, RH 95%, 48hours ▶ EN 60529 (front panel IP65, back side IP20) |  |
|---|--|---|

