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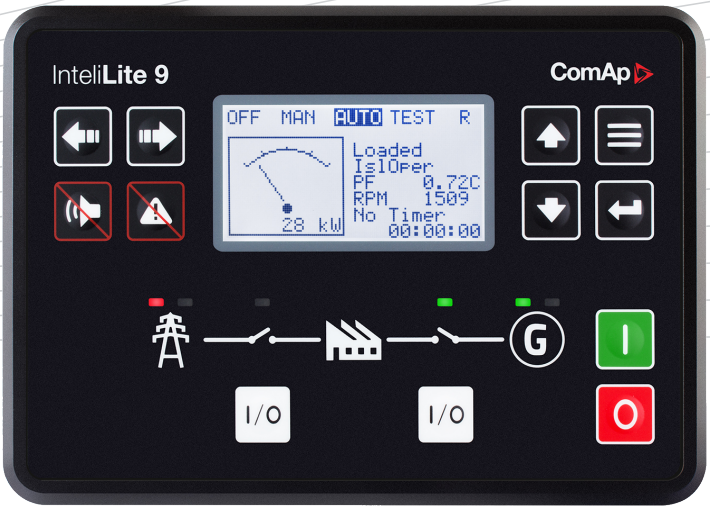
SVANTECH
The Source of Energy Generators
An Engineering and Technology Company

InteliLite 9



Order code: IL3LAMF9BAA

Controller for single gen-set applications

Datasheet

Product description

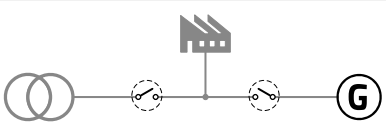
- Single gen-set controller for stand-by and prime-power applications
- Direct communication with EFI engines
- All-in-one intuitive & powerful PC tool for configuration/monitoring/control, locally or remotely

Key features

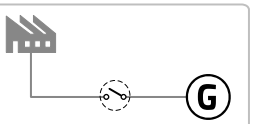
- Stand-by and prime-power application in one unit
- 5 languages in the controller & Translator functionality
- 3 levels of passwords
- 3 sets of alternative configurations
- Magnetic pickup
- ECU support & Tier 4 Final ready
- Plug-in module concept for more capabilities (Modbus, Internet, SMS, inputs/outputs)
- 1 slot for plug-in modules
- Power over USB for controller's adjustment
- Adjustable D+ threshold
- Ventilation pulse
- Flexible Choke
- Fuel Pump control
- 6 binary outputs, 6 + 1 binary inputs, 3 analog inputs
- 2 high-current binary outputs
- Adjustable delay for binary inputs
- Alarms and gen-set status assignable to binary outputs
- Run Hours source selector
- Multi-purpose scheduler functionality
- 3 maintenance timers
- Detailed history log with up to 150 records
- Zero power mode
- Possibility to disable protections
- Modbus register mapping possibility
- Start on low battery (only for native prime-power configuration)
- Cutout: 172 mm × 112 mm (same as IL-NT family)

Application overview

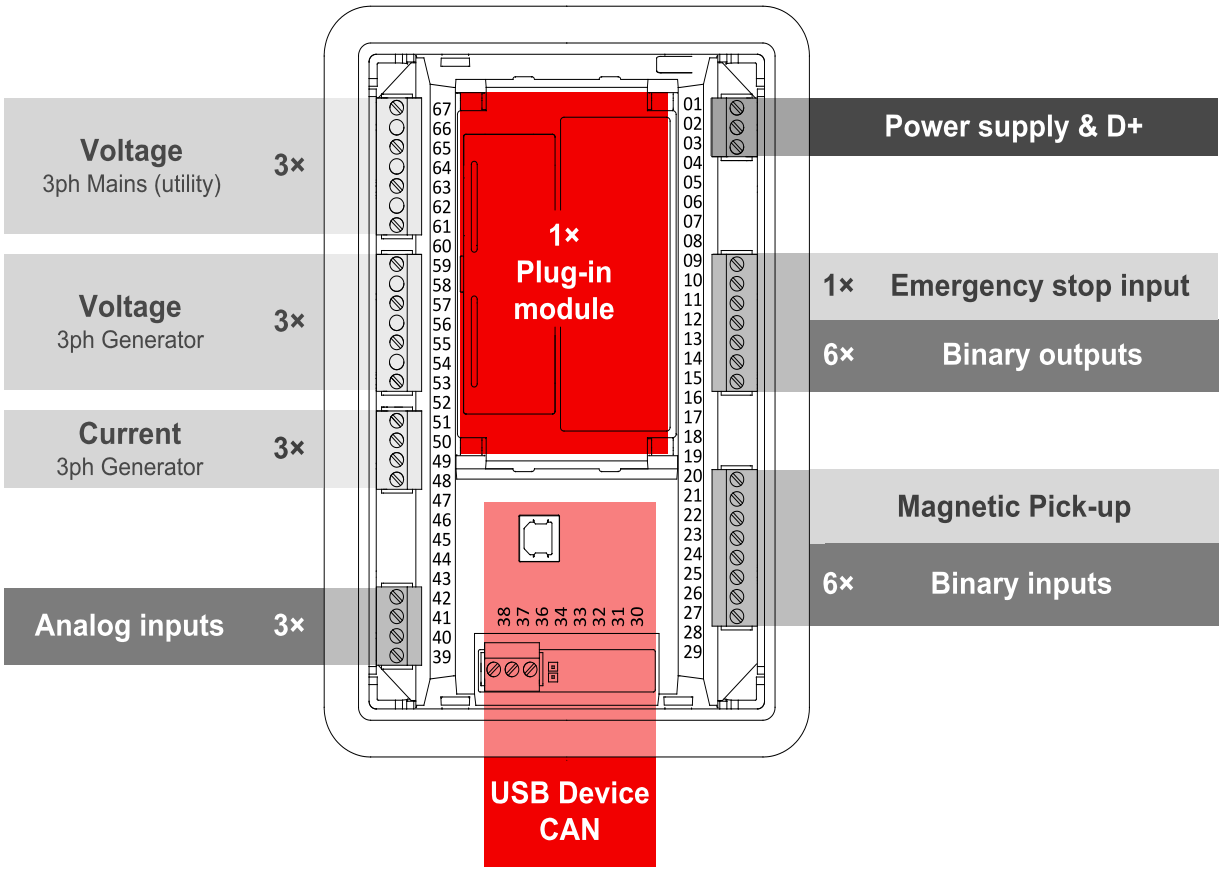
AMF
Mains & Generator Circuit Breaker

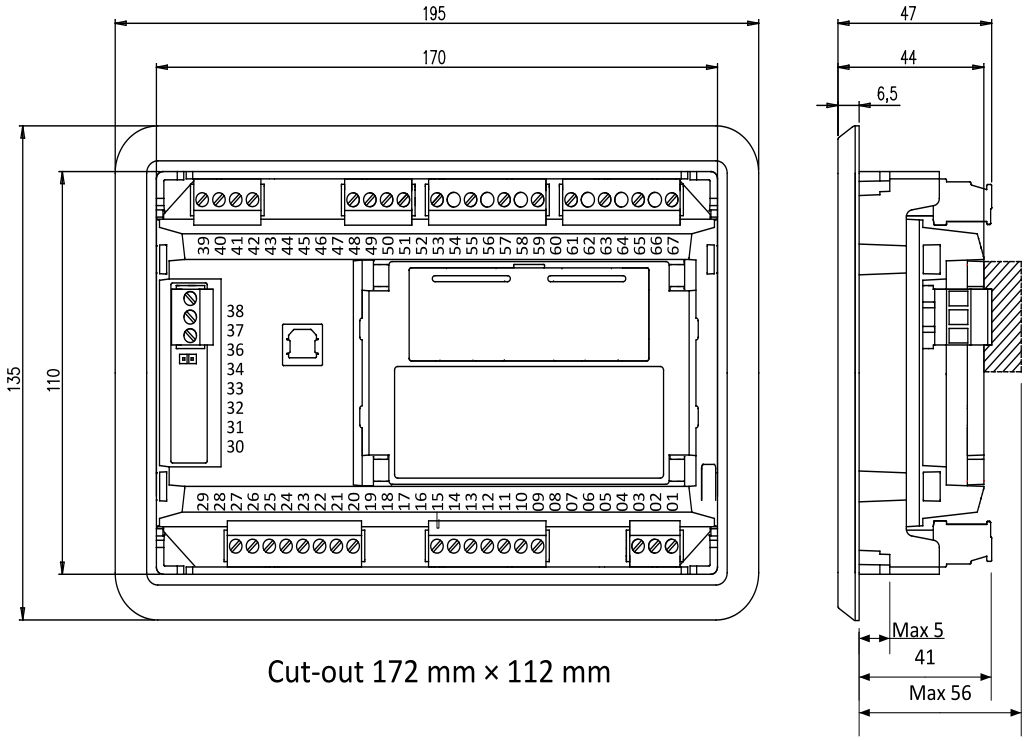


MRS
Generator Circuit Breaker



Dimensions, terminals and mounting





Cut-out 172 mm × 112 mm

Note: *The final depth of the controller depends on the selected extension 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 a standard RS232 connector and cable).*

Note: *Enclosure type rating with mounting instruction - for use on a flat surface of a type 1 enclosure.*

Technical data

Power supply

Power supply range	8-36 V DC
Power consumption	394 mA / 8 V DC 255 mA / 12 V DC 140 mA / 24 V DC 97 mA / 36 V DC
Fusing	Power terminal max. 3 A E-Stop max.12 A
Fusing E-Stop	12 A
Max. Power Dissipation	3.5 W

D+ terminal

Max. output current	250mA / 36V
Charging fail threshold	Adjustable

Operating conditions

Operating temperature	-20 ˚C to +70 ˚C
Storage temperature	-30 ˚C to +80 ˚C
Protection degree (front panel)	IP 65
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
Surrounding air temperature rating 70°C	
Suitable for pollution degree 2	

Voltage measurement

Measurement inputs	3ph-n Gen voltage , 3ph-n Mains
Measurement range	277 V / 480 V AC (EU) 346 V / 600 V AC (US/Canada)
Linear measurement and protection range	381 V / 660 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 Gen current
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

Display

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

E-Stop

Dedicated terminal for safe Emergency Stop input.
Physically disconnects BO 1 & BO 2 from power supply.

Binary inputs

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

Binary outputs

Low current	4, non-isolated max 0.5 A switching to positive supply voltage, BATT+
High current	2, non-isolated max 5 A (60 °C), max 4 A (70 °C) switching to positive supply voltage, E-Stop

Analog inputs

Number	3 resistive, non-isolated
Resolution	0.1 Ω
Range	0-2500 Ω
Input impedance	800 Ω
Accuracy	±2 % from value in range 0-2500 Ω ±1.5 kΩ in range 2.5-15 kΩ

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 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	B-connector, non-isolated
CAN 1	CAN bus, 250 kbps, max 200 m, 120 Ω termination option, non-isolated

Available extension modules

Product	Description	Order code
CM-4G-GPS	For SMS and GPS info	CM14GGPSXBX
CM-Ethernet	Ethernet interface	CM2ETHERXBX
CM-GPRS	For SMS	CM2GPRSXXBX
CM-RS232-485	Dual port interface	CM223248XBX
EM-BIO8-EFCP	8 additional binary inputs/outputs	EM2BIO8EXBX

Note: *This controller has 1 slot for plug-in modules.*

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	**Over current***	50 + 51
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

* Short current only

** Phase rotation only, fixed setting

Certificates and standards

- EN 61000-6-2
- EN 61000-6-4
- EN 61010-1
- EN 60068-2-1 (-20 °C/16 h for std version)
- EN 60068-2-2 (70 °C/16 h)
- EN 60068-2-6 (2÷25 Hz / ±1,6 mm; 25÷100 Hz / 4,0 g)
- EN 60068-2-27 (a=500 m/s^2; T=6 ms)
- EN 60068-2-30:2005 25/55°C, RH 95%, 48hours
- EN 60529 (front panel IP65, back side IP20)

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