

# InteliLite MRS 11



Order code: IL3MRS11BAA

## Controller for single gen-set applications

# Datasheet

### Product description

- ▶ Single Gen-set controller for Prime-power applications
- ▶ Direct communication with EFI engines
- ▶ All-in-one intuitive & powerful PC tool for configuration/monitoring/control, locally or remotely

### Key features

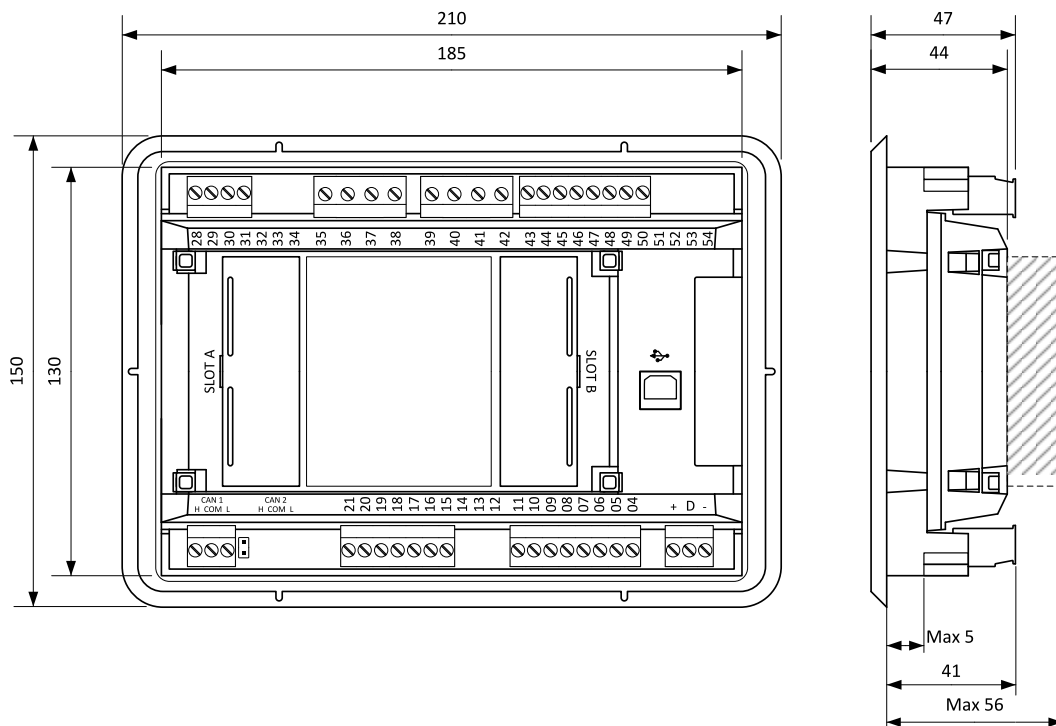
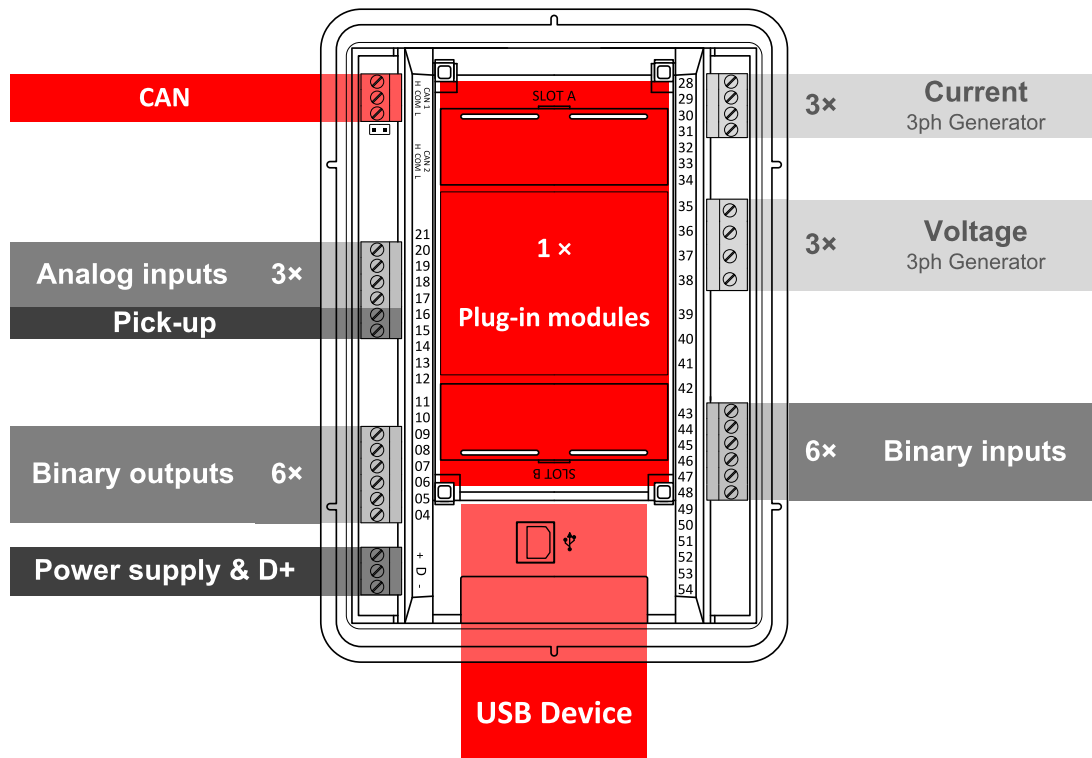
- ▶ 5 languages in the controller & translator functionality
- ▶ 3 levels of password
- ▶ 3 sets of alternative configurations
- ▶ Magnetic pickup
- ▶ ECU support & Tier 4 Final ready
- ▶ STAGE V support
- ▶ Plug-in module concept for more capabilities (RS232, RS485, Ethernet, GPRS, 4G/LTE, Modbus, emails, SMS, I/Os)
- ▶ 1 slots for plug-in modules
- ▶ CAN modules support
- ▶ Power over USB for controller's adjustment
- ▶ In-built PLC, complemented with a monitoring/debugging tool
- ▶ 8 binary outputs, 8 binary inputs, 4 analog inputs
- ▶ 2 high-current binary outputs
- ▶ Run Hours source selector
- ▶ Activation of outputs based on inputs

- ▶ Real time clock
- ▶ Multipurpose flexible timers
- ▶ Comprehensive history log with up to 150 events
- ▶ Dual Application: control of Gen-set, transfer switch and alternation
- ▶ 3 maintenance timers (counting even under zero)
- ▶ Modbus register mapping possibility
- ▶ Adjustable Main Screen

### 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 metal holders. The requested cutout size is 187 × 132 mm. Use the screw holders delivered with the controller to fix the controller into the door.

## 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>Power terminal fusing</b>	Max. 3 A (without BOUT consumption nor extension modules)
<b>Max. Power Dissipation</b>	3.5 W

## Operating conditions

<b>Protection degree (front panel)</b>	IP 65
<b>Operating temperature</b>	-20 °C to +70 °C
<b>Storage temperature</b>	-30 °C to +80 °C
<b>Operating humidity</b>	95 % non-condensing (EN 60068-2-30)
<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>
Surrounding air temperature rating 70 °C Suitable for pollution degree 3	

## D+ terminal

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

## Voltage measurement

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

## Communications

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

## Current measurement

<b>Measurement inputs</b>	3ph Gen current
<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>	6, non-isolated
<b>Close/Open indication</b>	0-2 VDC close contact 6-36 VDC open contact

## Binary outputs

<b>Low current</b>	4 low current output, non-isolated 0.5 A switching to positive supply voltage, BATT+
<b>High current</b>	2 high current output, non-isolated 5 A (60 °C), 4 A (70 °C) switching to positive supply voltage, BATT+

## 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>	170 Ω
<b>Accuracy</b>	±2 % from value in range above ±1.5 kΩ in range 2.5-15 kΩ

## Magnetic pickup

<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 to 5 kHz 10 Vpk-pk to 50 Vpk-pk in range 5 to 10 kHz
<b>Frequency input range</b>	4 Hz to 10 kHz
<b>Frequency measurement tolerance</b>	0.2 % from range 10 kHz

### Available plug-in modules

Product	Description	Order code
CM-4G-GPS	For SMS and GPS info	<a href="#">CM14GGPSXBX</a>
CM-Ethernet	Ethernet interface	<a href="#">CM2ETHERXBX</a>
CM-GPRS	For SMS	<a href="#">CM2GPRSXBX</a>
CM-RS232-485	Dual port interface	<a href="#">CM223248XBX</a>
EM-BIO8-EFCP	8 additional binary inputs/outputs	<a href="#">EM2BIO8EXBX</a>

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

### Available CAN modules

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

### 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	Current unbalance	46
Stopping device	5	Voltage unbalance	47
Multi-function device	11	Incomplete sequence relay	48
Overspeed	12	Overcurrent	50/50TD
Underspeed	14	AC circuit breaker	52
Starting-to-running transition contractor	19	Overvoltage	59
Thermal relay	26	Pressure switch	63
Undervoltage	27	Liquid level switch	71
Annunciator	30	Alarm relay***	74
Overload(real power)	32P	Overfrequency	81O
Master sequence device	34	Underfrequency	81U

\*Dual-operation

\*\*Extension module EM-BIO8-EFCP required

\*\*\* extension module IGL-RA15 required

### Certifications 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 60068-2-1 (-20 °C/16 h for std version)</li> <li>▶ EN 60068-2-2 (70 °C/16 h)</li> </ul>	<ul style="list-style-type: none"> <li>▶ EN 60068-2-6 (2÷25 Hz / ±1,6 mm; 25÷100 Hz / 4.0 g)</li> <li>▶ EN 60068-2-27 (a=500 m/s<sup>2</sup>; T=6 ms)</li> <li>▶ EN 60068-2-30:2005 25/55°C, RH 95%, 48hours</li> <li>▶ EN 60529 (front panel IP65, back side IP20)</li> <li>▶ UL 6200</li> </ul>	  
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