

## InteliLite MRS11



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
- ▶ 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)

### Operating conditions

<b>Operating temperature</b>	-20 °C to +70 °C
<b>Storage temperature</b>	-30 °C to +80 °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
<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>	6, 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 4 low current output, non-isolated
<b>Max. current</b>	10 A for 10 s, 5 A long term 0,5 A
<b>Switching to</b>	positive supply terminal

### Analog inputs

<b>Number</b>	3 non-isolated
<b>Type</b>	Resistor
<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

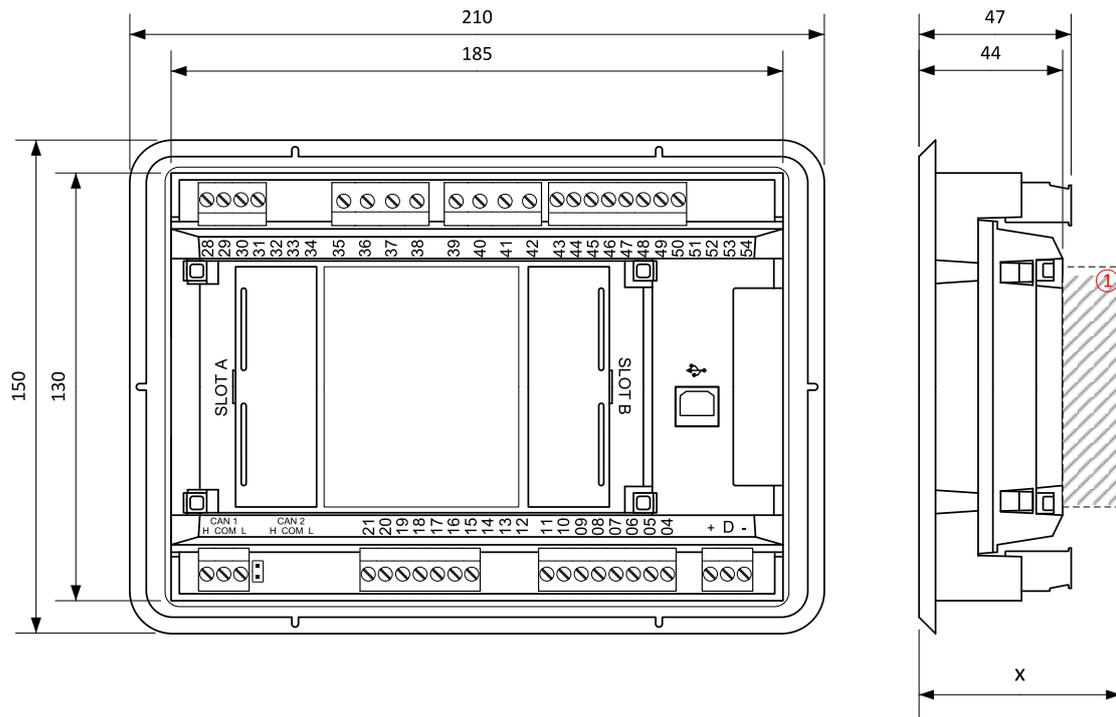
### Magnetic pick-up

<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

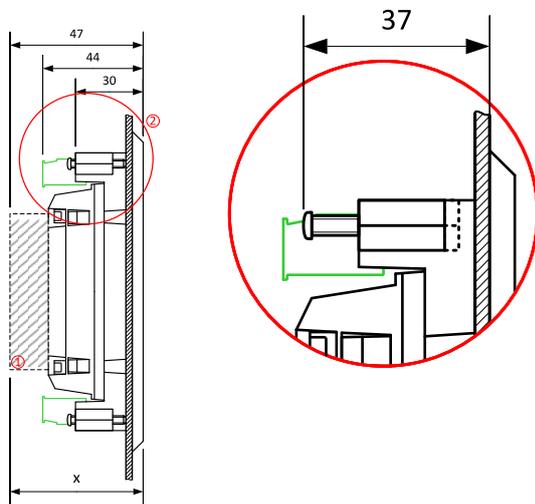
<b>USB port</b>	Non-isolated
<b>CAN 1</b>	CAN bus, 250 kbps, max 200 m, 120 Ω termination option non-isolated

## 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
<b>CM-4G-GPS</b>	GSM modem / 4G wireless internet and GPS locator	CM14GGPSXBX
<b>CM-Ethernet</b>	Ethernet interface	CM2ETHERXBX
<b>CM-GPRS</b>	GSM modem / GPRS wireless internet	CM2GPRSXXBX
<b>CM-RS232-485</b>	Dual port interface	CM223248XBX
<b>EM-BIO8-EFCP</b>	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
<b>Over voltage</b>	59	<b>Load shedding</b>	32P
<b>Under voltage</b>	27	<b>Overload</b>	32
<b>Voltage asymmetry and Phase rotation**</b>	47	<b>Power factor</b>	55
<b>Over frequency</b>	81H	<b>Temperature</b>	49T
<b>Under frequency</b>	81L	<b>Gas (fuel) level</b>	71
<b>Over current*</b>	50 + 51	<b>Earth fault current</b>	50N + 64
<b>Current unbalance</b>	46		

\* Short current only

\*\* Fixed setting

## Certificates and standards

<ul style="list-style-type: none"> <li>▶ EN 61000-6-1</li> <li>▶ EN 61000-6-2</li> <li>▶ EN 61000-6-3</li> <li>▶ EN 61000-6-4</li> <li>▶ EN 61010-1</li> <li>▶ EN 61000-2-1 (-20°C/16h for std version)</li> <li>▶ EN 61000-2-2 (70°C/16h)</li> <li>▶ EN 61000-2-6 (2÷25Hz / ±1,6mm; 25÷100Hz / 4,0g)</li> <li>▶ EN 60068-2-2(a=500m/s<sup>2</sup>)</li> <li>▶ EN 60068-2-30(25/55/25°C; humidity at 97% ; 2 cycles)</li> <li>▶ EN 60529 (front panel IP65, back side IP20)</li> <li>▶ IEC61010-2-030:2010/Measurement category II</li> </ul>	
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**Manufacturer:**

**ComAp a.s.**  
Czech Republic  
Phone: +420 246 012 111

Fax: +420 266 316 647  
E-mail: [info@comap.cz](mailto:info@comap.cz)  
Internet: [www.comap.cz](http://www.comap.cz)

