

# InteliNano<sup>NT</sup> MRS 3



Order code: IN-NT MRS 3

## Controller for small single gen-set applications

### Product description

- ▶ Single small gen-set controller for Primepower applications
- ▶ Direct communication with EFI engines

### Key features

- ▶ 3-phase current and voltage measurement
- ▶ Power measure and energy counter
- ▶ Magnetic pick up input
- ▶ Configurable from the front face
- ▶ Free configuration software (NanoEdit) & USB power-up
- ▶ Emergency stop internally connected to Starter and Fuel Solenoid outputs
- ▶ Up 6 inputs / Up 6 outputs
- ▶ ECE engine support over onboard CAN port
- ▶ Automatic recharge of battery
- ▶ Autodetection of connection type and voltage
- ▶ Zero power consumption mode
- ▶ Symbolic interface
- ▶ Event log of 15 records
- ▶ Light tower support

### Application overview



## Technical data

### Power supply

Power supply range	8–36 VDC
Power consumption	90 mA / 8 VDC 60 mA / 12 VDC 35 mA / 24 VDC 32 mA / 36 VDC
Fusing	2 A (without BOUT consumption)
Max. Power Dissipation	1.2 W

### Operating conditions

Operating temperature	–20 to 70 °C
Operating temperature (LT version)	–30 to 70 °C
Operating humidity	95% non-condensing (IEC/EN 60068-2-30)
Protection degree (front panel)	IP65
Vibration	5–25 Hz, $\pm 1.6$ mm 25–100 Hz, $a = 4$ g
Shocks	$a_{\max} = 500$ m/s <sup>2</sup>
Surrounding air temperature rating 70 °C.	
Suitable for pollution degree 3.	

### Voltage measurement

Measurement inputs	3Ph-N Voltage
Nominal voltage	230 V
Measurement range	277 V
Max. allowed voltage	350 V
Accuracy	$\pm 1$ % of nominal value (70 %–130 % of nominal voltage)
Frequency range	40–70 Hz (accuracy $\pm 0.1$ Hz)
Input impedance	> 300 k $\Omega$ (Ph-N) > 600 k $\Omega$ (Ph-Ph)

### Current measurement

Measurement inputs	3Ph Current
Measurement range	5 A
Max. allowed current	10 A
Accuracy	$\pm 20$ mA (0–2 A) $\pm 1$ % of measured value (2–5 A)
Input impedance	< 0.1 $\Omega$

### Binary inputs

Number	up to 6, non-isolated
Close/Open indication	< 2 V closed contact > 3.5 V open contact

### Binary outputs

Number	2 high current output, non-isolated up to 4 low current output, non-isolated
Max. current (high current output)	10 A short term, 6 A long term
Max. current (low current output)	0.5 A
Switching to	positive supply terminal

### Analog inputs

Number	up to 3, non-isolated
Type	Resistive
Resolution	0.1 $\Omega$
Range nominal	0–250 $\Omega$
Range maximal	up to 2.5 k $\Omega$
Accuracy	$\pm 2$ % of measured value $\pm 5$ $\Omega$ (0–250 $\Omega$ ) $\pm 4$ % of measured value (250 $\Omega$ –2.5 k $\Omega$ )

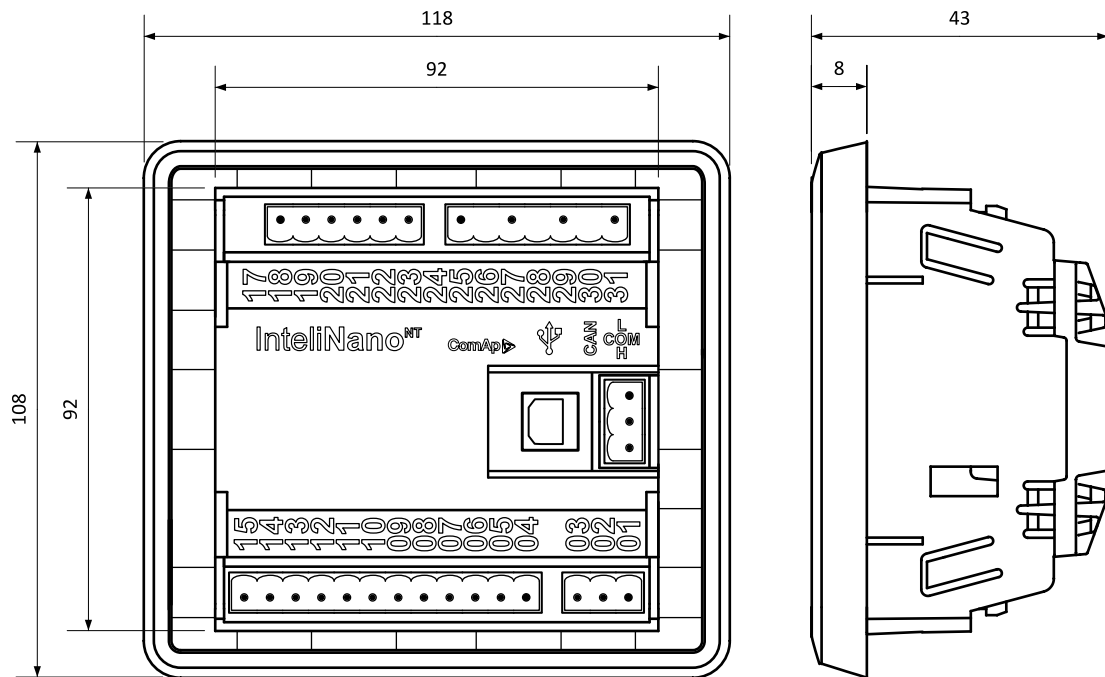
### Magnetic pick-up

Voltage input range	4–50 Vpk-pk (4 Hz–1 kHz) 6–50 Vpk-pk (4 Hz–5 kHz) 10–50 Vpk-pk (4 Hz–10 kHz)
Frequency input range	4 Hz–10 kHz
Frequency measurement accuracy	0.2 % of full scale

### Communication

CAN	CAN bus, 250 kbps, max 200 m, non-isolated
USB	non-isolated

## Dimensions, terminals and mounting



**Note:** The controller is to be mounted into panel doors as a standalone unit using provided fixing clips. The requested cut-out size is 94 × 94 mm. Use the screw holders delivered with the controller to fix the controller into the door.

## 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
Overvoltage	59	Over current**	50 + 51
Undervoltage	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

\*\*Fixed setting

## Certificates and standards

<ul style="list-style-type: none"> <li>▶ EN 61000-6-2EN</li> <li>▶ 61000-6-4</li> <li>▶ EN 60068-2-1 (–20 °C/16 h for std version)</li> <li>▶ EN 60068-2-2 (70 °C/16 h)</li> <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</li> <li>▶ EN 60529 (front panel IP65, back side IP20)</li> </ul>	
--	---

