ComAp
The heart of smart control

InteliNano NT MRS 3

Order code: IN-NT MRS 3

Controller for small single gen-set applications

Datasheet

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

Operating conditions

Operating temperature	-20 ˚C to +70 ˚C
Operating humidity	95 % w/o condensation
Protection degree (front panel)	IP 65
Vibration	5-25 Hz, ± 1.6 mm 25-100 Hz, a = 4 g
Shocks	a_{max} = 500 m/s^2
Surrounding air temperature rating 70 °C.	
Suitable for pollution degree 3.	

Voltage measurement

Measurement inputs	3 ph-N Voltage
Nominal voltage	230 V
Measurement range	277 V
Max. allowed voltage	350 V ph-n
Accuracy	±2 % of measured value ± 5 Ω (0-250 Ω) (70 %–130 % of nominal voltage)
Frequency range	40-70 Hz (accuracy 0.1 Hz)
Input impedance	> 300 kΩ (Ph-N), > 600 kΩ (Ph-Ph)

Current measurement

Measurement inputs	3 ph Current
Measurement range	5 A
Max. allowed current	10 A
Accuracy	±20 mA (0-2 A), ±1 % of measured value (2–5 A)
Input impedance	< 0.1 Ω

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 Ω
Range nominal	0-250 Ω
Range maximal	up to 2.5 kΩ
Accuracy	±2 % of measured value ± 5 Ω (0-250 Ω) ±4 % of measured value (250 Ω-2.5 kΩ)

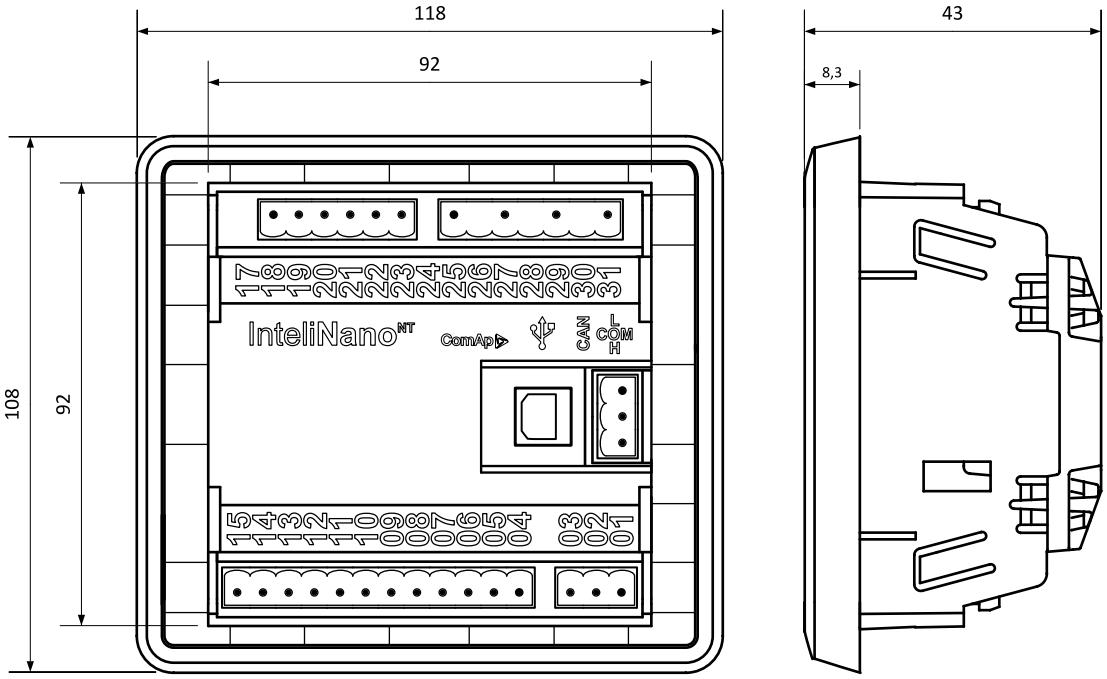
Magnetic pick-up

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 4 Hz to 5 kHz 10 Vpk-pk to 50 Vpk-pk in range 4 Hz to 10 kHz
Frequency input range	4 Hz to 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	Descritption	ANSI code
Overvoltage	59	**Over current****	50
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

*Phase rotation only

**Short circuit only

Certificates and standards

- EN 61000-6-2EN
- 61000-6-4
- 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
- EN 60529 (front panel IP65, back side IP20)

CE

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