

MainsPro LITE



Order code: MAINSPRO LITE

Mains Decoupling Relay

Datasheet

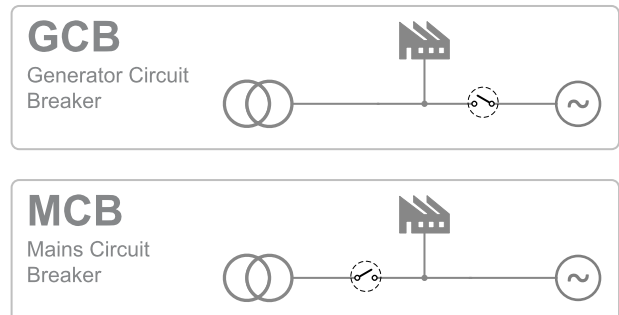
Product description

- ▶ Protection relay for a wide range of mains connected applications. These include generator sets and renewable energy sources such as photovoltaic plants, wind turbine and other forms of micro cogeneration.
- ▶ The unit is designed to fully comply with utilities' connection requirements and statutory codes, offering a high level of protection and safety when working in parallel to the mains.

Key features

- ▶ Perfectly suitable for low voltage installations
- ▶ Designed for standard DIN rail installation or door-mount (optional)
- ▶ Friendly interface with easy setting of setpoints
- ▶ Compact design allows installation into restricted spaces
- ▶ Simple wiring with detachable connectors
- ▶ Increased efficiency of commissioning tests
- ▶ Integrated mechanical lock to secure your setting

Application overview



Technical data

Power Supply

Power supply range	8-40 VDC
	85-263 VAC
	110-370 VDC
Maximal power consumption	6 W
Max. Power Dissipation	6 W

Operating conditions

Operating Temperature	-20 ... 70 °C
Protection degree	IP20

Voltage measurement

Measurement inputs	3 phase mains voltage
Measurement type	True RMS
Voltage range	230 V Ph-N
	400 V Ph-Ph
Maximal measured voltage	290 V Ph-N
	500 V Ph-Ph
Voltage accuracy	1 % from nominal value at 50 Hz ± 10% and 25 °C 1,5 % within the complete temperature range
Measurement input impedance	400 kΩ

Frequency measurement

Frequency range	40-70 Hz
Frequency accuracy	0,1 Hz within 40-70 Hz

Signal relay contacts

Max switched voltage / current	250 V / 4 A
Max switched power	Resistive load: 1000 VA AC, 200 W DC
	Inductive load: 50 VA AC, 25 WDC
Rated voltage / current relay	Resistive load, 250 V / 4 A AC, 200 V / 0 A, 1A; 24 V / 4A DC
	Inductive load, 250 V / 2 A AC, 200 V / 0 A, 1A; 24 V / 3A DC
Minimum load	1 W / 1 VA at $U_{min} > 10 V$
Lifetime	10^5 cycles

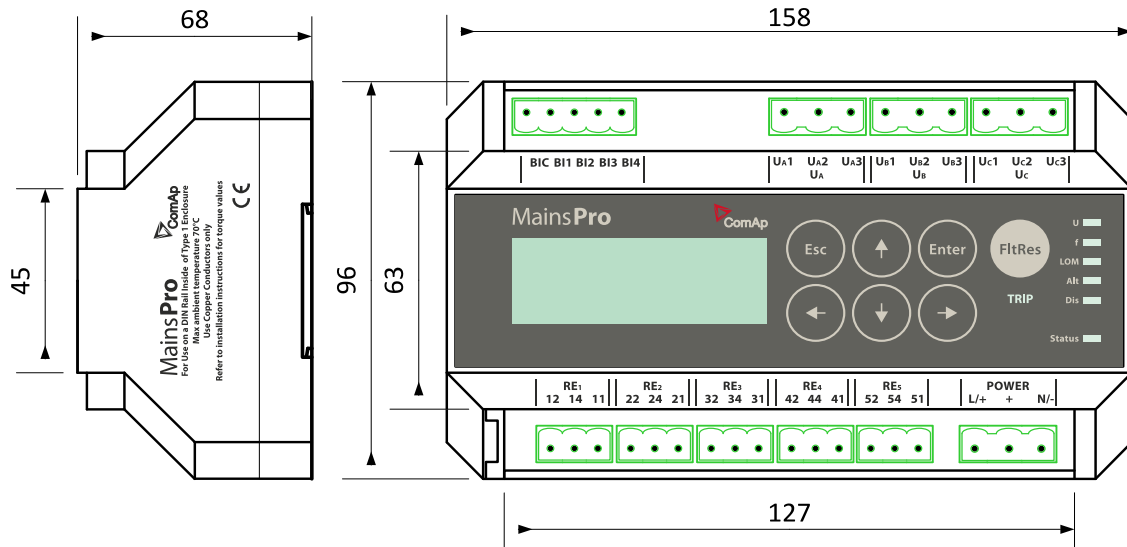
Binary inputs

Number	4 non-isolated
Input resistance	4.2 kΩ
Close/Open indication	0-2 VDC close contact
	0-36 VDC open contact

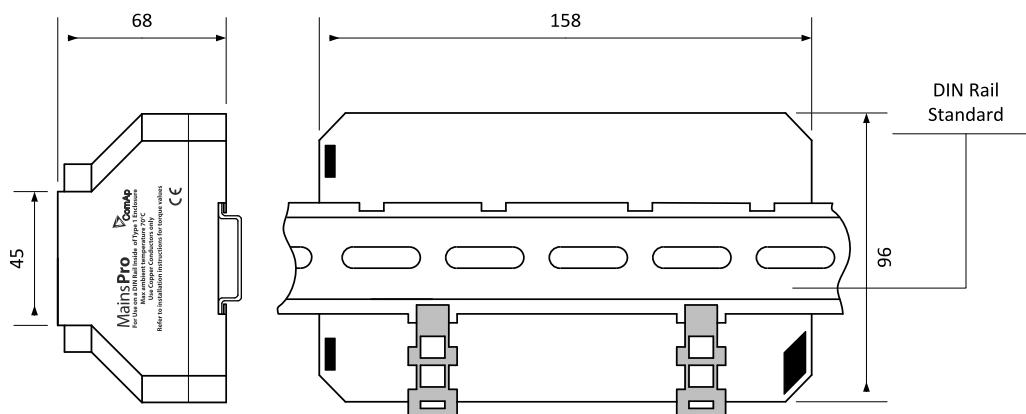
Display

Type	Build-in monochromatic
Resolution	4 lines X 20 symbols

Dimensions, terminals and mounting



DIN rail mounting



Note: MainsPro^{LITE} can be also mounted into panel doors as a standalone unit. For this way of installation is recommended to use MainsPro Frame.

Functions and protections


The described product fully supports the following functions and protections as defined by ANSI (American National Standards Institute):

Description	ANSI code
Undervoltage	27
Overvoltage	59
Voltage asymmetry	47
Underfrequency	81L
Overfrequency	81H
Phase sequence supervision	
Binary switches: Ext. trip, Fault reset, Activate/de-activate, Alternative parameters, CB Feedback	
10 minute floating average overvoltage	

Certificates and standards

Description	Code	Description	Code
Electromagnetic compatibility	EN 50263	Electrical fast transient/burst immunity	IEC 60255-22-4 EN 61000-4-4 IEC C37.90.1
Safety standard	IEC 61010-1	Surge immunity test	IEC 60255-22-5 EN 61000-4-5
Electrical relays test	IEC 60255-3 IEC 60255-5 IEC 60255-6	Immunity to conducted disturbances induced by radio-frequency field	IEC 60255-22-6 EN 61000-4-6 IEC C37.90.2
Sine vibration tests	IEC 60255-21-1	Test of power frequency magnetic field	IEC 61000-4-8
Shock and impact test	IEC 60255-21-2	Power frequency immunity tests	IEC 60255-22-7 EN 61000-4-16
Seismic test	IEC 60255-21-3	Interruptions to an alternative component (ripple) in DC auxiliary energizing quantity of measuring relay	IEC 60255-11 EN 61000-4-17 EN 61000-4-26
Electromagnetic compatibility requirements	IEC 60255-26	Voltage dips, short interruptions and voltage variations	IEC 61000-4-11
1 MHz burst immunity test	IEC 60255-22-1 IEC 61000-4-18 IEC C37.90.1	Environmental testing (- 30 °C)	IEC 60068-2-1
Damped oscillatory wave 100 kHz immunity test	IEC 61000-4-18 IEC C37.90.1	Environmental testing (+ 70 °C)	IEC 60068-2-2
Ring oscillatory wave immunity test	IEC 61000-4-12 IEC C37.90.1	Environmental testing - temperature change (- 25 °C .. + 70 °C)	IEC 60068-2-14
Test of electric discharge resistance	IEC 60255-22-2 EN 61000-4-2	Environmental testing Damp heat, steady state Temp. + 40 °C, humidity: 93 %	IEC 60068-2-78
Radiated electromagnetic field immunity test	IEC 60068-2-2 EN 61000-4-3 IEC C37.90.2		

Certificates and standards

<ul style="list-style-type: none"> ▶ VDE-AR-N 4105 ▶ IEC 60255 	<ul style="list-style-type: none"> ▶ CEI 0-21 ▶ IEn NR 005/2012 	
List of standards is available on: https://webstore.iec.ch/		

