

# MainsPro LITE



Order code: MAINSPRO LITE

## Mains Decoupling Relay

# Datasheet

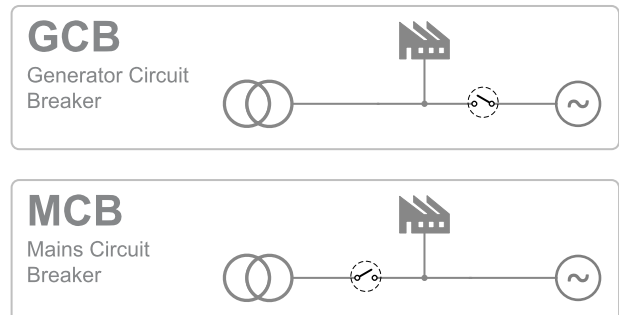
### Product description

- ▶ 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

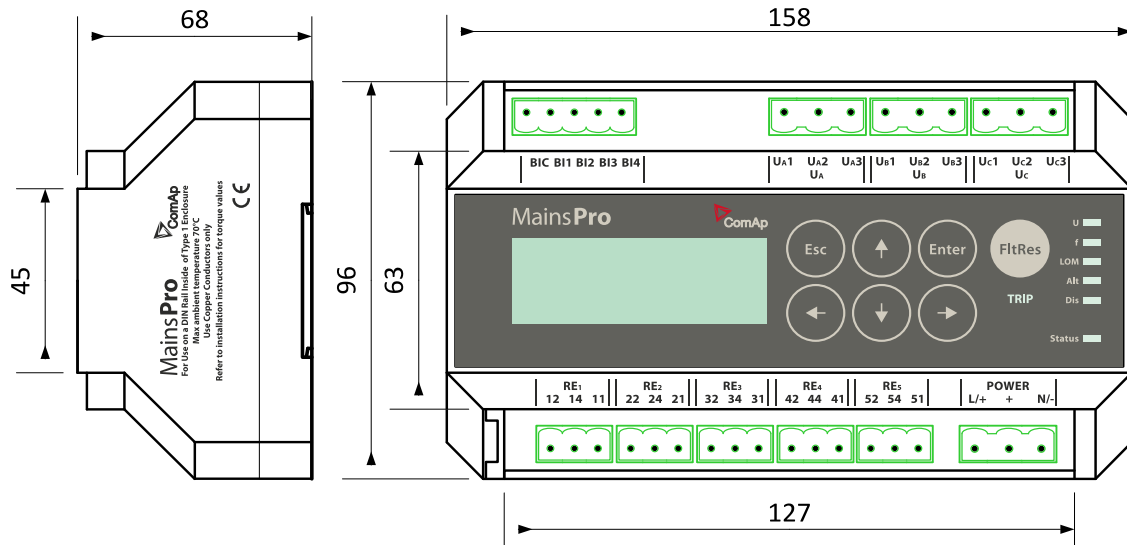
### Binary inputs

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

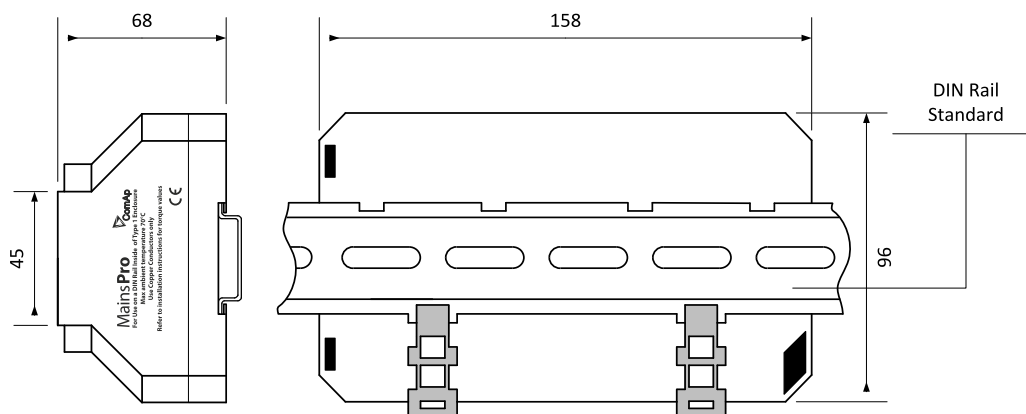
### Display

Type	Build-in monochromatic
Resolution	4 lines X 20 symbols

## Dimensions, terminals and mounting



### DIN rail mounting



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

