



Reverse Power Protection

Reverse power protection relays protect parallel operated generators against reverse current flows, tripping upon fault condition. The output relay trips when the monitored reverse current exceeds the user adjustable limit and the reverse power LED illuminates indicating a fault condition.

The trip point is adjustable from 2% to 20% of the nominal current through the front control knob. The relay also has a built-in time delay, adjustable from 0.2 to 20 seconds, used to avoid nuisance tripping.

The output relay is set to energise in reverse power conditions but can be supplied to de-energise if required. The relays are self powered, requiring no auxiliary power supply and LED's indicate forward and reverse power conditions.

Models Available

B871/1 Single Phase / 3 Phase 4 Wire

B871/3 3 Phase 3 Wire

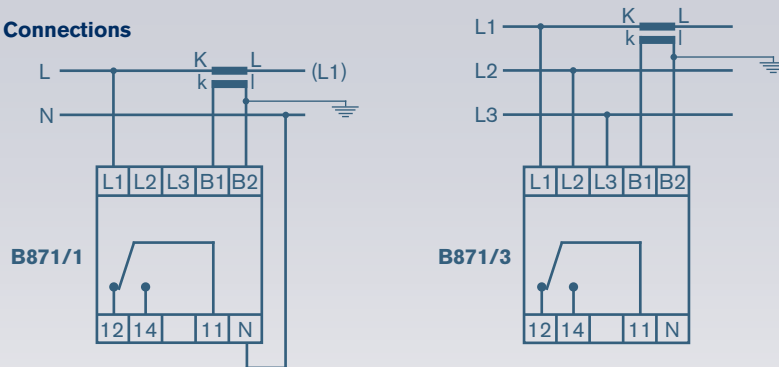
Product Features

- Protects against reverse power (from generators)
- LED indication

For dimensions see page 87

For protection against reverse current flows from parallel operated generators

Connections



Ordering information

Code	Relay Type	Nominal Current	Voltage
B871/1	Single Phase / 3 Phase 4 Wire Reverse Power	-	-
B871/3	3 Phase 3 Wire Reverse Power	-	-
Specify	-	1A or 5A from a CT	-
Specify	-	110 or 230VL-N (B871/1)	-
Specify	-	110, 380, 400 or 415VL-L (B871/3)	-
Example	B871/1	5A	110Vac

Specification

Nominal Current, I_n :

- 1A or 5A from CT

Nominal Voltage, U_n :

- 110, 230VL-N (B871/1)
- 110, 380, 400 or 415VL-L (B871/3)

Calibrated Scale:

- 2 to 20% reverse current (adjustable)

Time Delay:

- 0.2 to 20 seconds (adjustable)

Repeatability:

- Better than 0.5% of nominal

Differential (Hysteresis):

- Fixed 1%

Frequency:

- 50/60Hz (400Hz upon request)

Overload:

- 2 x I_n continuous
- 10 x I_n for 3 seconds

Burden:

- Current circuit < 0.5VA
- Voltage circuit < 2VA

Weight:

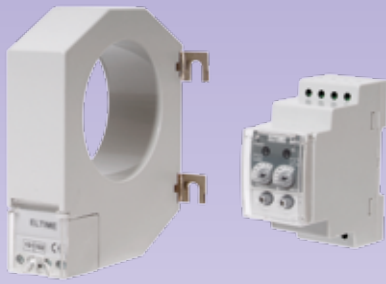
- 300g

Earth Leakage Relays



Global Suppliers of Measurement and Protection Equipment for Industry





Earth Leakage Relays

Models Available

- RN-0.03** Fixed Instantaneous 30mA trip point
- RN-0.3** Fixed Instantaneous 300mA trip point
- RN-R** Selectable 30mA to 5A trip point and 20ms to 5 second delay

Core Balance Transformers

- WN35** 35mm hole
- WN70** 70mm hole
- WN105** 105mm hole
- WN140** 140mm hole
- WN210** 210mm hole

Product Features

- 3 phase earth leakage protection
- 30mA to 5A trip current
- Instantaneous or up to 5 second delay
- Test and reset functions
- DIN rail mounting enclosure

Earth leakage relays monitor the leakage of current to earth on 3 phase electrical systems. The earth leakage relay is used in conjunction with a core balance transformer which are available in five different sizes to cover all sizes of three phase installations.

The relays are available with either a fixed 30mA or 300mA instantaneous trip point or with a user adjustable trip point and time delay both adjustable through rotary switches on the front of the relay. The relays are available auxiliary powered from either 110Vac or 230Vac.

All relays have reset and test functions and two LED's to indicate both power and trip status. The relays are DIN rail mounting and the RN-R has a clear front cover enabling a tamper-proof seal to be fitted if required.

For protection against the leakage of current to earth in 3 phase systems

Specification (Relay)

Trip Point, I_n :

- 30mA (RN-0.03), 300mA (RN-0.3)
- 30mA to 5A (RN-R) - see table
- Reset value $< 50\% I_n$

Accuracy:

- $< 2\%$

Time Delay:

- RN-0.03 & RN-0.3 Instant ($< 40\text{ms}$)
- RN-R 0.02 to 5 seconds - see table

LED Indication:

- Green: 'On', Red: 'Trip'

Test Circuit:

- Manual push button

Relay Output:

- Single pole changeover contact
- 5A at 250Vac ($\cos\phi=1$) or 30Vdc
- 3A at 250Vac ($\cos\phi=0.4$)

Isolation:

- 2.5kV rms 50Hz for 1 minute between input / output / auxiliary

Power Supply:

- 110 or 230Vac $\pm 10\%$ (4VA)

Operating Temperature:

- -5°C to 50°C

Enclosure:

- Mount: 35mm DIN rail (DIN-EN 50022)
- Screw type terminals (4mm² entry)

Weight:

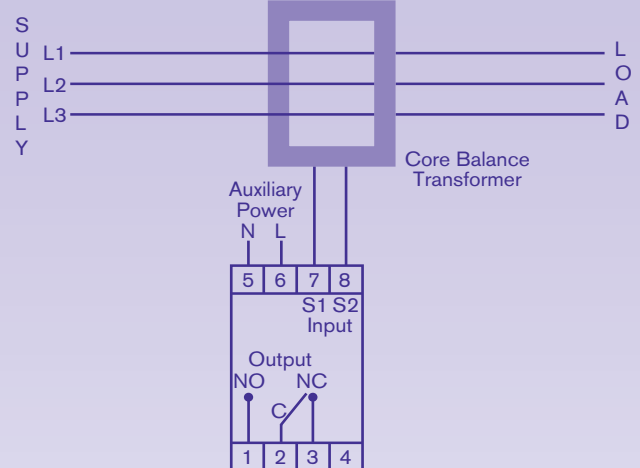
- 200g

Markings:

- CE marked

Connections

3 Phase 3 Wire



3 Phase 4 Wire

