AC Current Protection

AC current protection relays continuously monitor single phase or three phase AC currents, either directly or through current transformers, tripping upon fault condition. The output relay trips when the monitored current is outside of the user adjustable limit and the LED illuminates indicating a fault condition.

The trip point on all models is adjustable from 20% to 120% of the nominal current through the front control knob. The output relay is set to de-energise in the under current condition ensuring the protection relays are failsafe.

The relays are auxiliary powered and are available with either a single or double pole changeover relay output and optional built-in time delay.

Models Available

B867-1A Single Phase Over Current
B867-1B Single Phase Under Current
B867-3A 3 Phase Over Current
B867-3B 3 Phase Under Current

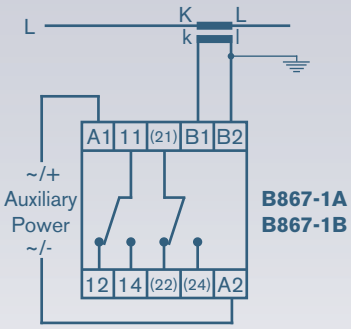
Product Features

- Protects for under or over current
- LED indication
- Single or double pole output available (Single phase model only)
- Optional built-in time delay

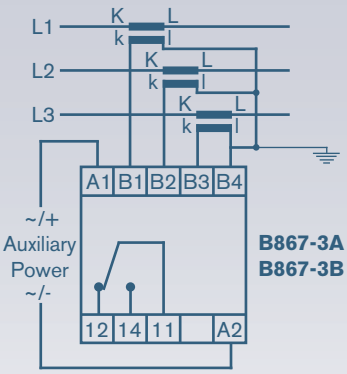
For dimensions see page 3

For AC current monitoring and protection against under or over current

Connections



B867-1A
B867-1B



B867-3A
B867-3B

Ordering information

Code	Relay Type	Nominal Current / Aux.	Output
B867-1A	Single Phase Over Current	–	–
B867-1B	Single Phase Under Current	–	–
B867-3A	Three Phase Over Current	–	–
B867-3B	Three Phase Under Current	–	–
Specify	–	1A or 5A from a CT	–
Specify	–	0.1A to 5A direct (B867-1 only)	–
Specify	–	110, 230, 380, 400 or 415Vac	–
Specify	–	24, 48Vac	–
Specify	–	10-60Vdc	–
1C/O	–	1 Pole Changeover Relay Output	
2C/O	–	2 Pole Changeover Relay Output	
Time Delay	– Time Delay - Specify on Fault or Reset and Time Range		
(Note: order code begins TA867, not B867 when time delay is included)			
Example	**B867-3A**	**5A, 230Vac**	**2C/O, 0.3-10 sec Delay on Fault**

Specification

Nominal Current, *In*:
- 1A or 5A from CT
- 0.1 to 5A direct (single phase model only)

Calibrated Scale:
- 20 to 120% (adjustable)

Frequency:
- 50/60Hz (400Hz upon request)

Overload:
- 2 x *In* continuous
- 10 x *In* for 3 seconds

Auxiliary Supply:
- 110, 230, 380, 400 or 415Vac (±15%)
- 24, 48Vac (±15%)
- 10-60Vdc (isolation 500V)

Burden:
- Current circuit < 0.5VA
- Auxiliary supply < 2VA

Operating Time:
- 100ms with a 200% over/under current
- 2.5 sec with a 2% over/under current
- Built-in time delay (optional)

Weight:
- 275g

General Specification

Reference Standards

Performance: IEC 144 / BS 5420 / VDE/VDI 0435 / IEC 947 / EN60947

Environmental

Calibration Temperature: 23°C
Operating Temperature: 0°C to 60°C
Storage Temperature: -10°C to 70°C
Temperature Coefficient: ±0.03%/ °C
Relative Humidity: 0 - 95% non-condensing

Relay Output

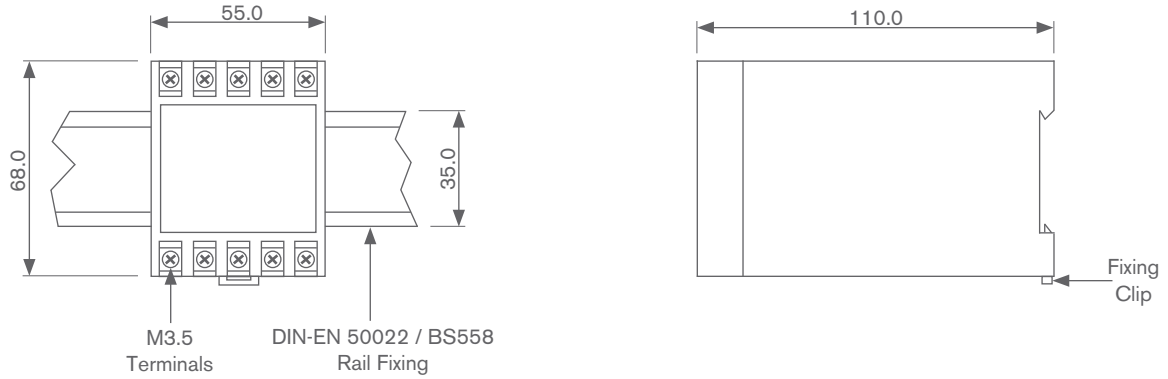
Relay Type: Single pole change-over
(Except CST-100 has single pole normally open or normally closed)
(Double pole change-over available on some models as as option)
Contact Rating: 5A @ 250Vac (non-resistive), 1A @ 125Vdc (resistive)
Contact Life: 1,000,000 at 5A, 10,000,000 at 1A
Mechanical Life: 2,000,000 operations
Dielectric Strength: 4kV coil/contact, 1kV contact/contact
Optional Time Delay: 0.3-10 sec, 1-30 sec, 2-60 sec, 3-100 sec or 10-300 sec (delay on fault or reset)
(Note if the voltage supply to the protection relay falls below 75% of the nominal the timer will fail to operate and the relay will trip instantaneously upon fault)

Enclosure

Enclosure: Flame retardant black ABS plastic with screw type terminals
Enclosure Code: Case IP50, terminals IP10 to IEC529 and BS5490
Insulation Test: 2kV rms 50Hz 1min (to IEC 414) between Input / Case / AC Auxiliary
Mounting: 35mm DIN rail (DIN-EN 50022)
Markings: CE marked

Specification subject to change without notice.

Dimensions



All dimensions in mm