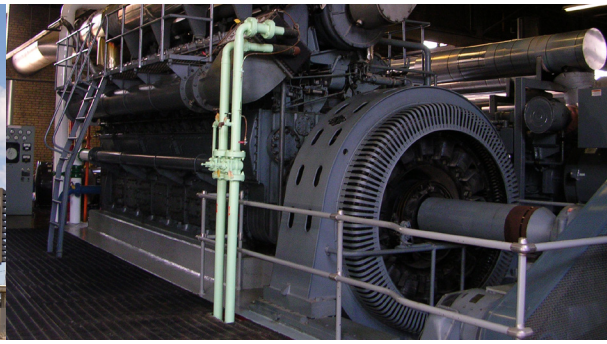
BE1-50 Instantaneous Overcurrent Relay







Overview

The BE1-50 provides high-speed detection of phase and/or ground faults. Optional output configuration allows the relay to be used as a phase-selective fault detector.

Features

- One relay can simultaneously monitor three phases plus neutral currents.
- Pickup setting is continuously adjustable over a wide range.
- Pickup repeatability ±2% or 40 milliamperes, whichever is greater.
- Independent output contacts for each sensing element.
- High speed operation.
- Flexible power supply provides operation from station (dc) power or line (ac) power.

Benefits

- Easily match system configuration with single-phase, two-phase-with-neutral, three-phase, and three-phase-with-neutral input configurations.
- Minimized CT costs as a result of low sensing burden.
- Reduced battery load with low burden power supply.
- Accurate, repeatable, and reliable operation.
- Simple HMI provides clear and intuitive settings for easy configuration.
- LED targets provide clear annunciation of status.
- Easily perform in-case system and device tests using test plugs.

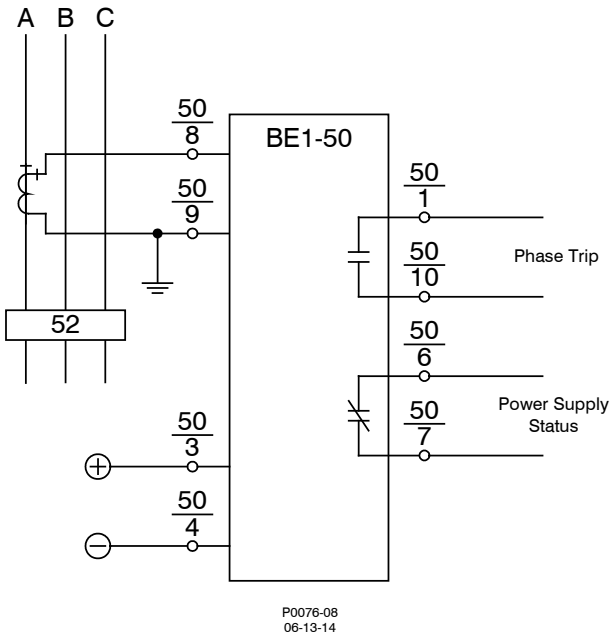


Figure 1 - BE1-50 Connection Diagram for a Typical Application (Sensing Input Type F and Output E or G, Option 3 is 6)

BE1-50 Instantaneous Overcurrent Relay

Specifications

Power Supply (Nominal)

XXXA1OXXXXX: 48 Vdc (1.2 W)
XXXA1PXXXXX: 125 Vdc (1.5 W), 120 Vac (19.3 VA)
XXXA1RXXXXX: 24 Vdc (1.3 W)
XXXA1SXXXXX: 48 Vdc (1.2 W), 125 Vdc (1.5 W)
XXXA1TXXXXX: 250 Vdc (1.7 W), 240 Vac (31.6 VA)

Current Sensing

Sensing Input Type:
- EXXA1XXXXXX: Two-phase and neutral
- FXXA1XXXXXX: Single-phase
- GXXA1XXXXXX: Three-phase
- JXXA1XXXXXX: Three-phase and neutral

Frequency Range: 50/60 Hz Nominal

Styles X2XA1XXXXXX and XXXA1XXXEXX:
- Range: 0.25 to 2.0 A
- Continuous: 5 A
- Forcing: 100 A (for one second)
- Burden per Input: 0.2 VA

Styles X4XA1XXXXXX and XXXA1XXXGXX:
- Range: 1.0 to 8.0 A
- Continuous: 10 A
- Forcing: 300 A (for one second)
- Burden per Input: 0.6 VA

Styles X6XA1XXXXXX and XXXA1XXXJXX:
- Range: 4.0 to 32.0 A
- Continuous: 20 A
- Forcing: 300 A (for one second)
- Burden per Input: 4.8 VA

Outputs

Resistive:
- 120 Vac: Make, break, and carry 7 Aac continuously.
- 250 Vdc: Make and carry 30 Adc for 0.2 s, carry 7 Aac continuously, break 0.3 Adc.
- 500 Vdc: Make and carry 15 Adc for 0.2 s, carry 7 Adc continuously, break 0.3 Adc.

Inductive:
120 Vac, 125 Vdc, 250 Vdc: Break 0.3 A (L/R=0.04)

Agency/Certifications

UL recognized

Environmental

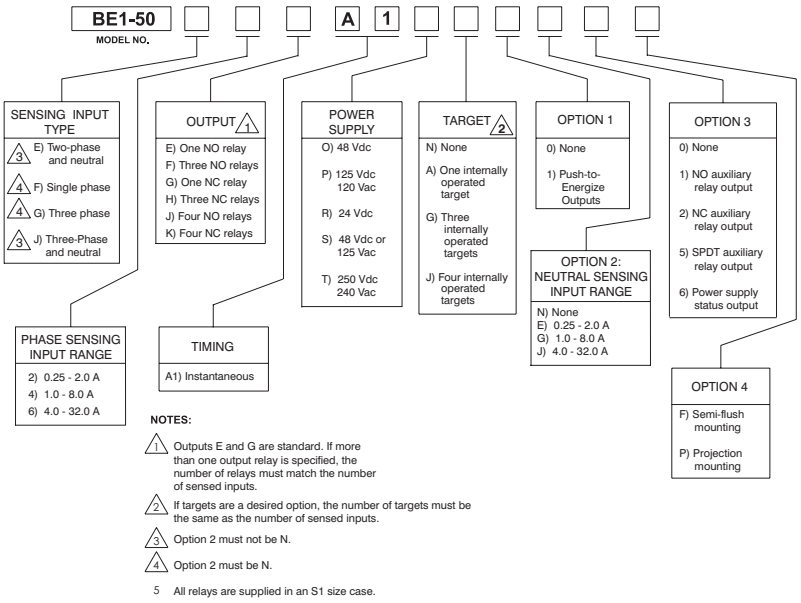
Operating Temp: -40°C to 70°C (-40°F to 158°F)
Storage Temp: -65°C to 100°C (-85°F to 212°F)
Surge Withstand: Qualified to IEEE C37.90.1, Standard Surge Withstand Capability (SWC) Tests for Protective Relays and Relay Systems.
Shock: 15 G in each of three perpendicular planes
Vibration: 2 G in each of three perpendicular planes, 10 to 500 Hz for six sweeps, 15 minutes each sweep

Physical

Weight: 17.5 lb (7.76 kg)
S1 Case Dimensions (WxHxD):
Double Ended, Semi-Flush Mount:
5.56" x 8.68" x 6.94"
(141.2 mm x 220.5 mm x 176.3 mm)
Single Ended, Semi-Flush Mount:
5.56" x 8.38" x 6.94"
(141.2 mm x 212.9 mm x 176.3 mm)
Double Ended, Projection Mount:
5.56" x 8.68" x 8.14"
(141.2 mm x 220.5 mm x 206.8 mm)
Single Ended, Projection Mount:
5.56" x 8.38" x 8.14"
(141.2 mm x 212.9 mm x 206.8 mm)

For complete specifications, download the instruction manual at www.basler.com.

Style Chart



NOTES:
1. Outputs E and G are standard. If more than one output relay is specified, the number of relays must match the number of sensed inputs.
2. If targets are a desired option, the number of targets must be the same as the number of sensed inputs.
3. Option 2 must not be N.
4. Option 2 must be N.
5. All relays are supplied in an S1 size case.

Related Products

BE1-FLEX Protection, Automation and Control System
Designed to be configurable for nearly any Power System Application.

Accessories

Cases, Covers, Connectors, Mounting, Batteries, and Miscellaneous
Designed for adaptive customization with your protective device.

Test Plugs
To allow testing of the relay without removing system wiring, order two test plugs. Basler part number 10095.

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