

INTRODUCTION

BE3 phase sequence relays detect reverse phase connections of lines, transformers, motors, and generators. An incorrect phase sequence causes the BE3-47 to de-energize, preventing the starting of incorrectly connected equipment.

SPECIFICATIONS

Inputs

All units are self powered.

Nominal Voltage: 120 Vac, 240 Vac, 380 Vac, or 480 Vac

Overload Withstand: 1.25 times nominal continuously.
2 times nominal for 3 s.

Frequency: 50, 60, or 400 Hz

Burden: <3 VA

Outputs

Relay Type: D.P.D.T.

AC Rating: 250 V, 5 A, non-resistive,
1200 VA

DC Rating: 125 V, 1 A, resistive, 120 W

Mechanical Life: 5 million operations

Temperature

Operating Temperature: 0°C (32°F) to 60°C (140°F)

Functional Temperature: -25°C (-13°F) to 70°C (158°F)

Storage Temperature: -40°C (-40°F) to 70°C (158°F)

Temperature Coefficient: 0.03% per °C (300 ppm/°C)

Humidity

Relative Humidity: 95% non-condensing

Physical

Mounting: DIN rail 1.38" by 0.29" (35 mm by 7.5 mm)

Case: Complies with IEC 529, DIN 40050, BS 5490

Case Material: Complies with UL 94V0

Weight: 0.88 lb (0.4 kg)

Size: 2.17" wide (55 mm)

Agency

cULus listed to UL 508 and CSA C22.2 No. 14

CE compliant

GOST-R certified per the relevant standards of Gosstandart of Russia

OPERATION

The BE3-47 output relay energizes when the relay senses a nominal three-phase input with the correct phase sequence. The output relay de-energizes when an input with an incorrect phase sequence is detected. Two LED indicators are provided. The green 123 LED lights to indicate correct phase sequence. The red 321 LED lights to indicate incorrect phase sequence.

INSTALLATION

BE3 phase sequence relays are designed for mounting on standard DIN rails that comply to DIN-EN 50022. Mounting involves hooking the top edge of the cutout on the base of the case over one edge of the DIN rail. The opposite side of the cutout containing the release clip is then pushed over the opposite side of the DIN rail. To remove or reposition the relay, lever the release clip and move the relay as required. BE3 relays should be installed in a dry, vibration-free location where the ambient temperature does not exceed the operating temperature range. Connections to the relay should be made using wire that meets applicable codes and is properly sized for the application. Figure 1 shows the terminal connections for the BE3-47 relay.

CALIBRATION

The BE3-47 has no adjustments and no calibration is necessary. The following procedure may be used to verify proper operation.

1. Apply a nominal, three-phase input with the correct phase sequence. The output relay should energize and the green 123 LED should light.
2. Apply a nominal, three-phase input with an incorrect phase sequence. The output relay should de-energize and the red 321 LED should light.

MAINTENANCE

BE3 relays are solid-state devices that require no maintenance. In the event that your relay requires repair, contact Basler Electric, Highland, IL, USA for return authorization.

ORDERING INFORMATION

Figure 2 shows the BE3 phase sequence relay style chart.

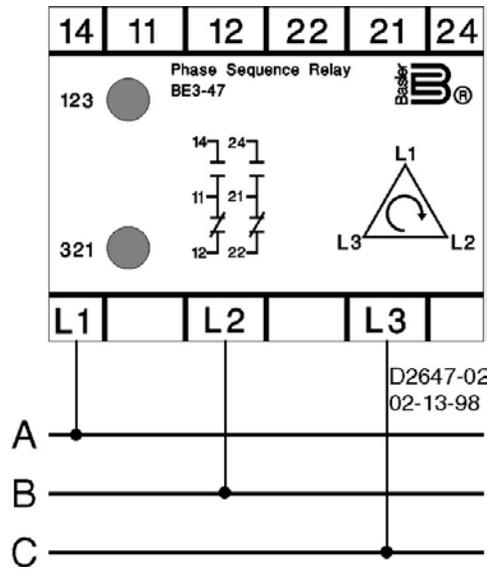


Figure 1. BE3-47 Phase Sequence Connections

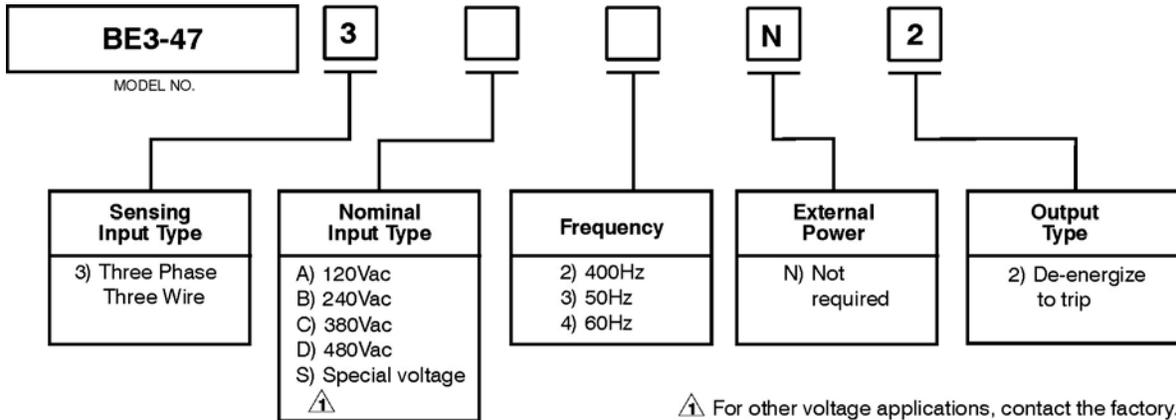


Figure 2. BE3-47 Style Number Identification Chart