CLOSE DIFFERENTIAL UNDERVOLTAGE RELAY (PFR)

DESCRIPTION

The Lake Shore Electric Close Differential Undervoltage relay continuously monitors the voltage of a three phase power source and provides dependable response to protect generators, transformers and motors from damage due to a continual undervoltage condition.

When the voltage in each phase attains a value equal to or greater than the "pickup" setting, the output contacts change state and an LED is energized. Pickup is easily field adjustable on all three phases by means of a single potentiometer accessible with a screwdriver from the front of the relay. The range of adjustment is 70% to 100% of nominal voltage.

When the voltage of any phase fails below the "dropout" setting, the output contacts revert to their de-energized state and the LED is de-energized. Dropout is easily field adjustable on all three phases by means of a single potentiometer accessible with a screwdriver from the front of the relay. Adjustable range is 70% - 100% of nominal voltage.

FEATURES

For ease of installation , the Lake Shore three phase Undervoltage Relay is back panel mounted using four screws (see Bulletin 992622x for mounting dimensions).

The Lake Shore Undervoltage Relay provides true three phase sensing. Where most Undervoltage Relays are designed to measure the average voltage of all three phases and operate on this average voltage, the Lake Shore Undervoltage Relay measures each phase separately. It will not "pickup" until all three phases attain the value selected by the potentiometer setting. Correspondingly, the Relay will "dropout" as soon as any of the three phases show a drop in voltage below the value selected by the potentiometer setting. See Bulletin 2600-T for further information on this important feature.

Lake Shore Electric Corporation believes that a voltage relay that does not provide discrete monitoring of all three phases should never be relied upon in critical applications.

APPLICATION

Electrical loads are designed to operate under relatively constant voltage conditions. Undervoltage conditions from the supply source can cause corresponding overcurrent and increased temperature conditions which could have potentially damaging effects to connected equipment. Protective undervoltage relays which monitor supply voltage can provide an output signal when voltage drops below predetermined levels. They can be employed in a wide variety of applications which include motor protection, transformer protection, generator protection, supervision of automatic transfer systems, power generation systems, and area protection monitoring systems.

LAKE SHORE ELECTRIC CORPORATION
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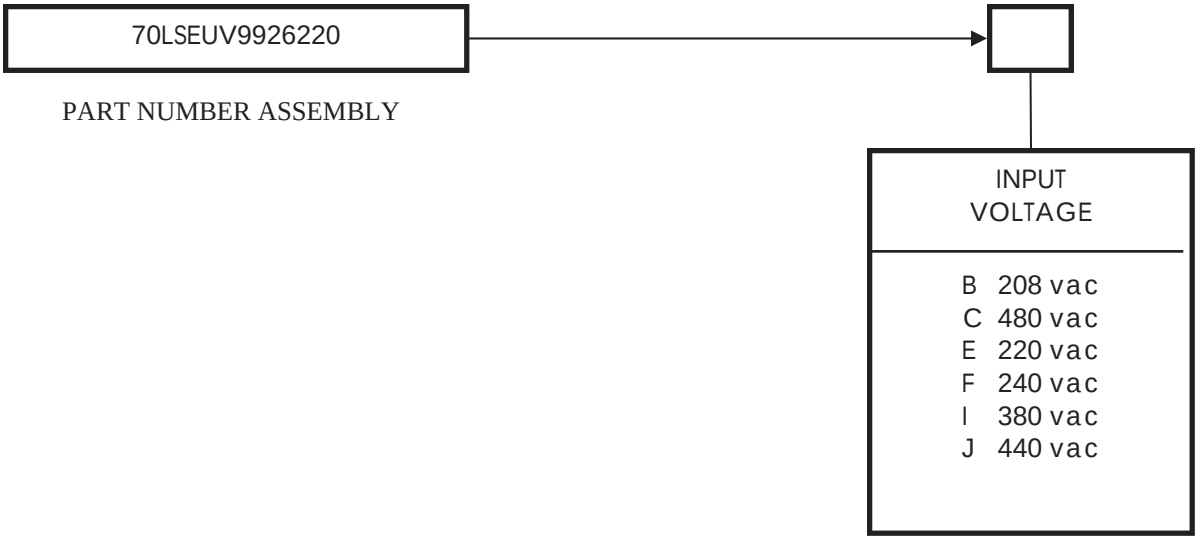
CLOSE DIFFERENTIAL UNDERVOLTAGE RELAY (PFR)
ORDERING INFORMATION



COMPLETE PART NUMBER ASSEMBLED
Example
70LSEUV9926220B

SPECIFICATIONS

INPUT VOLTAGE	Model 70LSEUV9926220, 3 phase, from 208 to 480 VAC. Input voltage is factory set and marked on nameplate.
ACCURACY	± 2% of nominal over operating temp. range
TRANSIENT	110% of nominal continuously 150% of nominal 10 seconds 200% of nominal 1 second
FREQUENCY	50/60 Hertz 40/70 Hertz ± 1% of normal
POWER CONSUMPTION	3 VA maximum
TEMPERATURE	Operating –20°C to +60°C Storage –40°C to +80°C
CONTACT TYPE	One form “C” dry contact
RATING	5 amp @ 120VAC or 28VDC resistive
WEIGHT	30 ounces
HIGH POT	Mini. of 2X nominal voltage + 1,000 volts
CONSTRUCTION	Solid state sensor with relay output housed in a steel enclosure
VISUAL SETTING	±5% of nominal voltage
APPROVED BY	U.L. Industrial Control Equipment

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