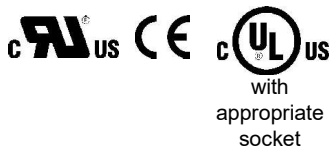


# PHASE REVERSAL

## PCP SERIES



- ◆ Protects against phase reversal only
- ◆ Universal voltage range of 190-500V or 460-600V—greater range that covers more global applications
- ◆ Full fault indication on top of unit for easy troubleshooting
- ◆ 10A SPDT output contacts



The PCP Series Three-Phase Monitor Relays continuously monitor all voltages to protect motors and equipment from expensive damage due to phase reversal. These products have an isolated relay output that is only energized if the three phases are in the proper A-B-C sequence. The relay output will remain open if any two phases are reversed.

Phase Reversal Relays should be used in applications where motor direction is critical or sequence detection is required by Code. **NOTE:** these products provide protection against phase reversal only. If a product with more than phase reversal protection is required, see the Reference Guide at the beginning of this catalog section to select the correct product.

The PCP Series is a true universal product, with two units that work on a wide variety of line-line voltages without any adjustment to cover more global applications. They utilize an industry-standard 8 pin octal socket.

### Operation:

When the proper three-phase line voltage is applied to the unit and the phase sequence (rotation) is correct, the relay is energized after the Restart Delay is completed. An out-of-sequence condition will prevent the relay from energizing on start-up or de-energize the relay after a delay if it occurs when energized. Re-energization is automatic upon correction of the fault condition. A bi-color status LED indicates normal condition and also provides specific fault indication to simplify troubleshooting.

### PCP SERIES

PROTECTS AGAINST	LINE-LINE VOLTAGE▲ (50/60 Hz)	CATALOG NUMBER	WIRING/SOCKET
Phase Reversal	190-500V	PCPU ●	8 Pin Octal <b>70169-D</b> DIAGRAM 23
	460-600V	PCP575 ●	

- ▲ Phase-to-Phase (Line-to-Line).
- Requires a 600V-rated socket when used on system voltages above 300V.



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Sockets & Accessories available

# PHASE REVERSAL

## PCP SERIES

### APPLICATION DATA

#### Voltage Requirements:

RANGE (50/60Hz ±5%)	MIN VOLTAGE	MAX VOLTAGE	CATALOG NUMBER
190-500V AC	156V AC	550V AC	PCPU
460-600V AC	390V AC	660V AC	PCP575

**Power Consumption:** Less than 40VA

#### Phase Reversal (Sequence):

Unit trips if rotation (sequence) of the three phases is anything other than A-B-C. It will not work on C-B-A.

#### Response Times:

Power Up & Restart After Fault: 1 second fixed

Drop-out Due to Phase Reversal: 100ms fixed

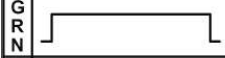

**Output Contacts:** SPDT 10 A @ 277V AC / 7A @ 30V DC;  
1HP @ 250V AC, 1/2HP @ 125V AC,  
C300 Pilot Duty

**Life:** Mechanical: 10,000,000 operations; Full Load: 100,000 operations

**Temperature:** Operating: -28° to 65°C (-18° to 149°F)  
Storage: -40° to 85°C (-40° to 185°F)

**Mounting:** Uses an 8 pin octal socket. Requires a 600V-rated socket when used on system voltages greater than 300V such as Macromatic Catalog Number 70169-D.

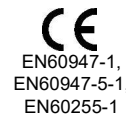
#### Status LED:

	LED STATUS	STATUS
GRN		NORMAL/ RELAY ON
RED		REVERSAL

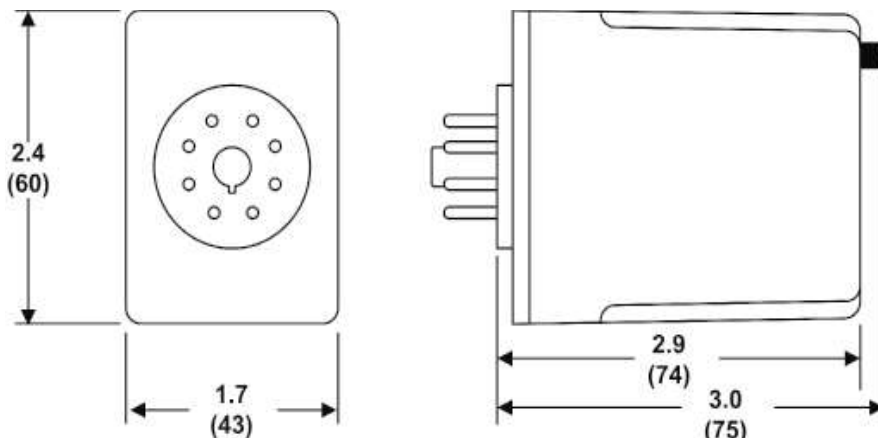
#### Reset:

Automatic upon correction of fault.

#### Approvals:



### DIMENSIONS



All Dimensions in  
Inches (Millimeters)