



# Single & Three Phase Voltage Monitor

# PBO-T

## Specifications

### Electrical

**Line Voltage:** 115, 208, 230 & 265VAC, 1Ø  
208, 230, 380, 460 & 575VAC, 3Ø

**Frequency:** 45 to 65 Hz

**Over/Under Voltage:** ±15%

**Phase Imbalance:** Trip: 8%, Reset: 7%

**Phase Rotation:** A - B - C

### Time Delays:

Trip Time: 5 seconds (1 Second @ ±20%,  
Single Phasing 3Ø line)

Re-Start: 5 Seconds on power up  
30 Seconds after fault

Set-Up: Automatic, based on jumper

### LED:

Good: Continuous Green  
Fault Rotation: Flashing Red (3Ø)  
Fault Voltage: Solid Red

**Power Consumption:** 1VA

**Output Rating @ 25°C:**

10 Amps @ 120VAC

6 Amps @ 277VAC

1/8 HP @ 120/277VAC

5 Amps @ 20VDC

### Physical

**Mounting:** Surface Mounting with ¼”  
& 0.187” push-on tabs

### Termination:

Line Side: 1/4” Push-On Tabs

Control Side: 0.187” Push-On Tabs

**Packaging:** Epoxy Fill

**Weight:** 5 Ounces

### Ambient Temperatures

**Operating:** -40°C to 65°C

**Storage:** -40°C to 85°C



### Voltage Ranges:

- 115 to 265VAC, 1Ø
- 208 to 575VAC, 3Ø

### Self-Powered

### SPDT Relay Contacts

### 22 Built-In Voltage Selections

### Monitors:

- Over & Under Voltage
- Phase Loss
- 115 to 265VAC, 1Ø
- 208 to 575VAC, 3Ø

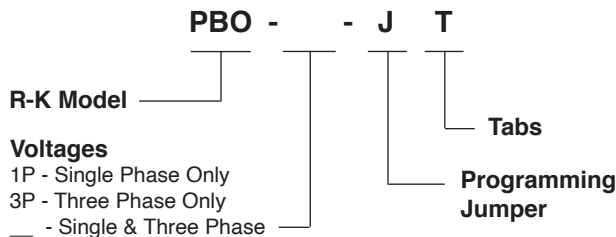
### 1Ø VOLTAGES:

115VAC, 1Ø 1 Red Flash  
208VAC, 1Ø 2 Red Flash  
230VAC, 1Ø 3 Red Flash  
265VAC, 1Ø 4 Red Flash

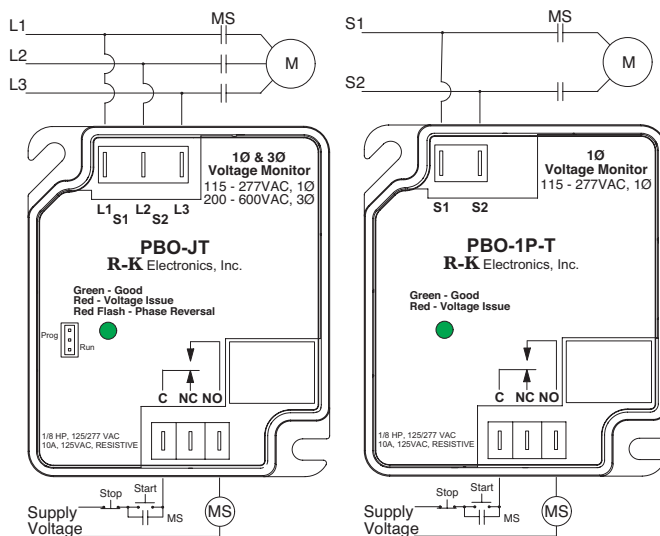
### 3Ø VOLTAGES:

208VAC, 3Ø 1 Green Flashes  
230VAC, 3Ø 2 Green Flashes  
380VAC, 3Ø 3 Green Flashes  
460VAC, 3Ø 4 Green Flashes  
575VAC, 3Ø 5 Green Flashes

## Ordering Information



## Connections



## Operation

To select the line voltage, place the jumper in the “Prog” position before powering up the equipment. The PBO will compare the line voltages present at the time of power up to the 9 voltages available in the PBO. If the line voltage matches one of the line voltages designed into the PBO and all of the pre-programmed tolerances, the output relay will energize after the evaluation period. Place it in the “Run” position to avoid re-programming on each power up.

Green LED - Good

Red Solid - Line Voltage Issue

Red Flashing - Reversed Phases

To determine what voltage range the PBO is set for while in operation, remove the jumper. The LED will indicate the voltage range by flashing red or green in a sequence corresponding to the selected voltage.

## Dimensions

