

PHASE LOSS, PHASE REVERSAL & PHASE UNBALANCE

PBDU SERIES

THREE-PHASE MONITOR RELAYS | DIN-RAIL



- ◆ Protects against phase loss, phase reversal and phase unbalance
- ◆ Compact 17.5 mm wide enclosure for DIN-rail mounting
- ◆ Universal voltage range: 208 - 480V AC
- ◆ LED status indication on front face for easy troubleshooting
- ◆ 5A SPDT output contact



Better. By Design.

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The PBDU Series Phase Monitor Relays protect motors and equipment from damage due to voltage faults on three-phase systems. PBDU relays monitor phase loss, phase reversal, and unbalance. Phase unbalance is adjustable from 5% to 25%, and can be disabled altogether if desired.

The compact 17.5 mm enclosure for DIN-rail mounting conserves space and reduces installation time.

LED status indication is located on the front face. Green indicates Power ON. Yellow indicates relay status. Any of the three fault conditions will de-energize the relay after a fixed trip delay of 100 ms. Re-energization is automatic upon correction of the fault condition.

Monitored voltage is universal: 208V - 480V AC.

PROTECTS AGAINST	MONITORED VOLTAGE 50/60 HZ	CATALOG NUMBER	WIRING
Phase Loss, Phase Reversal, Phase Unbalance	208 – 480V AC ■	PBDU	<p>DIAGRAM 823</p>
■ Phase-to-Phase (Line-to-Line)			

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APPLICATION DATA

Voltage Requirements:

RANGE (50/60Hz ±5%)	MIN VOLTAGE	MAX VOLTAGE	CATALOG NUMBER
208 – 480V AC	187V AC	528V AC	PBDU

Power Consumption:

10VA (1W) @ 400V / 50Hz
16VA (1.5W) @ 480V / 60Hz

IP Rating: IP 20

Phase Loss:

Unit trips on loss of any Phase L1, L2 or L3, regardless of any regenerative voltages.

Phase Reversal (Out-of-Sequence):

Unit trips if sequence (rotation) of the three phases is anything other than L1-L2-L3.

It will not work on L3-L2-L1.

Phase Unbalance: Adjustable from 5 - 25% unbalance or can be disabled. Unit trips when any one of the three lines deviates from the average of all three lines by more than the adjusted set point for a period longer than the adjustable trip delay.

Time Range: Trip delay, fixed 100 ms

Accuracy: ≤5%

Repeat accuracy, ±2%

Temperature influence, ≤0.05% / °C

Output Contacts: SPDT 5A @250V AC

Life:

Mechanical - 20,000,000 operations;
Electrical - 200,000 operations at 1000 VA resistive load

Temperature:

Operating, -25 to +55°C (ambient temperatures above 40°C, a side distance to other units of 5 mm must be observed).
Storage, -25 to 75°C

Humidity: -15% to 85%

Mounting: Mounts on 35mm DIN-rail

Indicators:

Green LED ON, indicates Power ON

Yellow LED ON, indicates relay status is energized

Termination:

1 x #14-20 AWG

2 x #16-20 AWG

Recommended tightening torque of 0.7 ft.lb. (1 Nm) maximum

Weight:

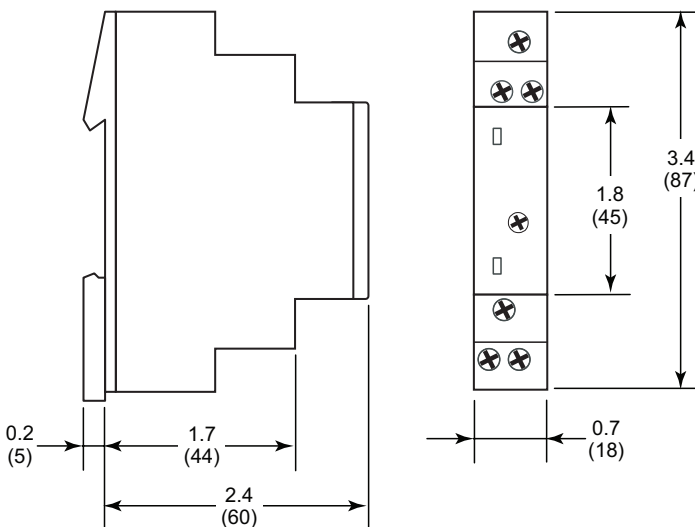
Single packing, 0.16 lb (72 g)

Approvals:



File # E236146

DIMENSIONS



All Dimensions in
Inches (Millimeters)