

The **PBD Series** offers protection to three-phase sequence sensitive equipment that is required to operate between two voltage limits. All three phases are monitored individually for a pre-selected **UNDER** and **OVER VOLTAGE** limit, with adjustable release delay.

**OPERATION**

With normal operating voltages applied in the proper ABC sequence, the internal relay will energize (PICK-UP). When the voltages on any or all phases fall outside the preset Over/Under trip points for longer than the Adjustable Release delay, the relay will de-energize (DROPOUT). When line conditions return to normal, the PBD Series Monitor automatically resets and the internal relay energizes.

Both Delta and Wye systems may be monitored. In Wye systems, connections to neutral are not required.

The LED fault indicators aid in set up and system troubleshooting, and glow on fault condition. The LED indicators have an immediate response to voltage conditions and operate independently of the relay. In a phase reversal condition the LED responds to voltage conditions but the relay will NOT energize.

The Adjustable Release Delay is provided to ignore momentary voltage fluctuations that cause nuisance tripping.

The HYSTERESIS in each unit provides a differential of 4% between the PICK-UP and DROP-OUT trip points.

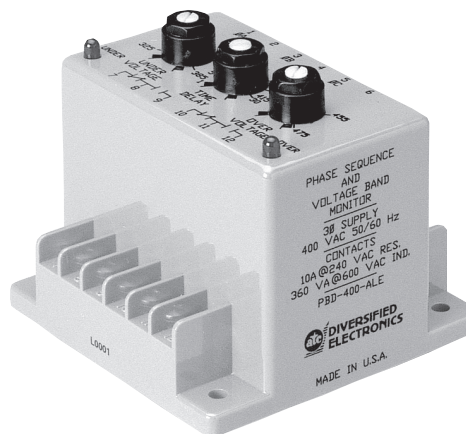
The PBD Series is UL Listed under UL File Number E55826.

**SPECIFICATIONS**

<b>OUTPUT RATING</b>	DPDT, 10Amps @ 240 VAC, Resistive; 360 VA @ 600 VAC, Inductive; 1/2 hp	
<b>POWER REQUIRED</b>	Models Up to 300 VAC	7 VA, Max
	Models Over 300 VAC	6 VA, Max
<b>RESET</b>	Automatic	
<b>PHASE SEQUENCE</b>	ABC (Will Not Operate CBA)	
<b>HYSTERESIS</b>	4%	
<b>REPEAT ACCURACY</b>	0.1% @ Fixed Condition	
<b>INDICATORS LED</b>	Glow On Fault; (1) For Over, (1) For Under	
<b>RESPONSE TIMES</b>	Operate	100 mSEC
	Release	0.1 to 30 SEC, Adjustable
<b>TEMPERATURE RATING</b>	Operate	32° to +104°F (0° to +40°C)
	Storage	-49° to 185°F (-45° to +85°C)
<b>WEIGHT</b>	19 oz.	

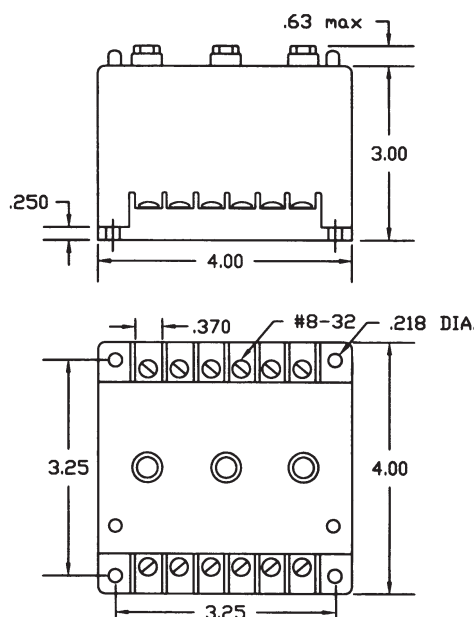
MODEL NUMBER	MAXIMUM VOLTAGE	ADJUSTABLE RANGES	
		UNDER	OVER
PBD-120-ALE	155 VAC	90-120	120-150
PBD-230-ALE	275 VAC	185-240	208-265
PBD-400-ALE	485 VAC	325-385	415-475
PBD-440-ALE	550 VAC	390-480	440-540
PBD-480-ALE	570 VAC	400-490	460-560
PBD-575-ALE	700 VAC	500-610	540-690

All voltages referenced on this page are phase-to-phase.



**3 Phase Sequence & Voltage Band Monitor/Relays**

**DIMENSIONS (INCHES)**



**WIRING**

