New Product

OMRON

Three-phase Voltage and Phase-sequence Phase-loss Relay

K8AK-PM

Ideal for Monitoring 3-phase Power Supplies for Industrial Facilities and Equipment.

- Greater resistance to inverter noise. ***NEW***
- Monitor overvoltages, undervoltages, phase sequence, and phase loss for three-phase 3-wire or 4-wire power supplies with just one Unit.
  Switch setting for 3-phase 3-wire or 3-phase 4-wire power supply.
- Two SPDT output relays, 5 A at 250 VAC (resistive load).
  Output overvoltages and undervoltages using separate relays.
- World-wide power specifications supported by one Unit (switchable).
- Output status can be monitored using LED indicator.

⚠ Refer to *Safety Precautions* on page 10.
Refer to page 8 to 9 for commonly asked questions.

For the most recent information on models that have been certified for safety standards, refer to your OMRON website.

Ordering Information

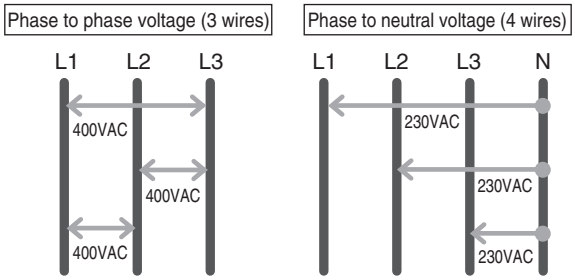
List of Models

Rated input*		Model
3-phase 3-wire mode	200, 220, 230, 240 VAC	**K8AK-PM1**
3-phase 4-wire mode	115, 127, 133, 138 VAC	
3-phase 3-wire mode	380, 400, 415, 480 VAC	**K8AK-PM2**
3-phase 4-wire mode	220, 230, 240, 277 VAC	

Note: Three-phase 3-wire or 4-wire and the input range are switched using a DIP switch.
* The power supply voltage is the same as the rated input voltage.

●Single K8AK Monitors 3-phase Power Supply with 3 or 4 Wires

Monitoring Relays can be used to monitor 3-phase power supplies with 3 or 4 wires simply by changing DIP switch settings.



A Single K8AK Can Monitor a 3-phase Power Supply Anywhere in the World

Reduces Maintenance Parts Inventory

	SW3			ON	OFF	ON	OFF
	SW4			ON	ON	OFF	OFF
K8AK-PM1	SW2	ON	P-N	138 V	133 V	127 V	115 V
		OFF	P-P	240V	230 V	220 V	200 V
K8AK-PM2	SW2	ON	P-N	277 V	240 V	230 V	220 V
		OFF	P-P	480 V	415 V	400 V	380 V

K8AK-PM

Ratings and Specifications

Ratings

Rated input voltage	**K8AK-PM1**	Three-phase, three-wire Mode: 200, 220, 230 and 240 VAC Three-phase, four-wire Mode: 115, 127, 133 and 138 VAC
	K8AK-PM2	Three-phase, three-wire Mode: 380, 400, 415 and 480 VAC Three-phase, four-wire Mode: 220, 230, 240 and 277 VAC
Input load		K8AK-PM1: Approx. 4.4 VA K8AK-PM2: Approx. 4.4 VA
Operating value setting range (OVER, UNDER)		Overvoltage –30% to 25% of rated input voltage Undervoltage –30% to 25% of rated input voltage **Note:** The rated input voltage can be switched using the DIP switch.
Operating value		100% operation at set value
Reset value		5% of operating value (fixed)
Reset method		Automatic reset
Operating time setting range (T)	**Overvoltage/undervoltage**	0.1 to 30 s
	Phase sequence	0.1 s±0.05 s
	Phase loss	0.1 s max.
Power ON lock time (LOCK)		1 s or 5 s (Switched using DIP switch.)
Indicators		Power (PWR): Green, Relay output (RY): Yellow, OVER/UNDER: Red
Output relays		Two SPDT relays (NC operation)
Output relay ratings		Rated load Resistive load 5 A at 250 VAC 5 A at 30 VDC Maximum switching capacity: 1,250 VA, 150 W Minimum load: 5 VDC, 10 mA (reference values) Mechanical life: 10 million operations min. Electrical life: 5 A at 250 VAC or 30 VDC: 50,000 operations 3 A at 250 VAC/30 VDC: 100,000 operations
Ambient operating temperature		–20 to 60°C (with no condensation or icing)
Storage temperature		–25 to 65°C (with no condensation or icing)
Ambient operating humidity		25% to 85% (with no condensation)
Storage humidity		25% to 85% (with no condensation)
Altitude		2,000 m max.
Terminal screw tightening torque		0.49 to 0.59 N·m
Terminal wiring method		Recommended wire Solid wire: 2.5 mm^2 Twisted wires: AWG16, AWG18 **Note:** **1.** Ferrules with insulating sleeves must be used with twisted wires. **2.** Two wires can be twisted together. Recommended ferrules AI 1,5-8BK (for AWG16) manufactured by Phoenix Contact AI 1-8RD (for AWG18) manufactured by Phoenix Contact AI 0,75-8GY (for AWG18) manufactured by Phoenix Contact
Case color		N1.5
Case material		PC and ABS, UL 94 V-0
Weight		Approx. 150 g
Mounting		Mounts to DIN Track.
Dimensions		22.5 × 90 × 100 mm (W×H×D)