

Phase-sequence Phase-loss Relay

K8DS-PH

Three-phase Phase-sequence Phase-loss Relay Using Voltage Detection Method



- Lineup includes a 17.5-mm slim, compact model. **NEW**
- Greater resistance to inverter noise. **NEW**
- Distinguishes between correct phases, phase sequence, and phase loss when power is turned ON.
- Supports phase loss detection when the motor is operating.
- Output status can be monitored using LED indicator.
- Ideal to prevent reverse operation of motors.



Refer to *Safety Precautions* on page 8.
Refer to page 7 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

| Function | Rated input voltage* | Relay output | Model |
|--|--------------------------------|--------------|----------|
| Phase sequence and phase loss monitoring | 3-phase, 3-wire 200 to 480 VAC | SPDT × 1 | K8DS-PH1 |

* The power supply voltage is the same as the rated input voltage.

K8DS-PH

Ratings and Specifications

Ratings

| | | |
|---|---|--|
| Rated input voltage | 3-phase, 200 to 480 VAC (3-wire) | |
| Input load | Approx. 2.7 VA | |
| Operating time | Phase sequence | 0.1 s±0.05 s |
| | Phase loss | 0.1 s max. (when the voltage changes rapidly from 100% to 0% of rated voltage) |
| Reset method | Automatic reset | |
| Indicators | Power (PWR): Green, Relay output (RY): Yellow | |
| Output relays | One SPDT relay (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 Al 1,5-8BK (for AWG16) manufactured by Phoenix Contact Al 1-8RD (for AWG18) manufactured by Phoenix Contact Al 0,75-8GY (for AWG18) manufactured by Phoenix Contact | |
| Case color | N1.5 | |
| Case material | PC, UL 94 V-0 | |
| Weight | Approx. 60 g | |
| Mounting | Mounts to DIN Track. | |
| Dimensions | 17.5 × 80 × 74 mm (W×D×H) | |