



ELKO

ELKO HRN-55 phase monitoring relay

Product code 50011 · Emergency lighting > Accessories

Three-phase voltage monitoring relay with fixed limits (ELKO HRN-55) for 3 × 400 V networks. Monitors phase sequence, phase failure, and overvoltage and undervoltage; one 8 A changeover contact.

- Monitors phase sequence, phase failure and voltage level
- Fixed limits: upper 125% and lower 75% U_n
- Supplied from all phases – works even if one phase is missing
- 1 changeover contact 8 A / AC1
- Adjustable delay 0.1–10 s
- Narrow 17.6 mm DIN rail enclosure

Product description

ELKO HRN-55 is a voltage monitoring relay for three-phase networks (3 × 400 V, 50–60 Hz) with fixed monitoring limits. It monitors phase sequence, failure of any phase, and a voltage rise above 125% or drop below 75% of the nominal voltage. The relay is supplied from all phases, so it remains in operation even if one phase is missing.

Operation

The green LED is lit continuously to indicate the supply voltage. In the event of a phase failure or when the voltage exceeds the limits, the red LED flashes and the relay releases. When entering the fault state, a delay (0.1–10 s) adjustable with a potentiometer on the front panel is applied, which prevents short disturbances from tripping the relay. If the phase sequence is incorrect, the red LED is lit continuously and the relay remains open. If the supply voltage drops below 60% of the nominal value, the relay opens immediately without delay. The hysteresis is 2%.

Applications

The phase monitoring relay is used to protect three-phase equipment, such as motors and compressors, from phase faults and, if required, to control other functions. In emergency lighting systems, it can be used to ensure that the emergency lighting is activated if any phase fails; for example, according to the technical description of Panasonic MX emergency luminaires, the phase monitoring device is connected to a monitored input of I/O unit 4461/4462.

Installation

The relay is mounted on a DIN rail (EN 60715), and the mounting position is free. The enclosure is only 17.6 mm wide. The monitored phases L1, L2 and L3 also act as the supply terminals.

Technical data

Product code	50011
Manufacturer	ELKO
Product group	Emergency lighting > Accessories
Operating voltage	3 × 400 V AC, 50–60 Hz (supplied from the monitored phases)
Input power	Max. 2 VA / 1 W

Monitored mains supply	3 × 400 V (L1-L2-L3)
Monitoring limits	Upper limit 125% Un, lower limit 75% Un (fixed)
Hysteresis	2%
Delay	t1 max. 500 ms, t2 adjustable 0.1–10 s, t3 max. 1 s
Output	1 changeover contact (AgNi), 8 A / AC1, 250 V AC / 24 V DC
Operating temperature	–20...+55 °C
Dimensions	90 × 17.6 × 64 mm
Weight	61 g
IP rating	IP40 (front panel), IP10 (terminals)
Mounting	DIN rail (EN 60715)
Connection	Conductors max. 2 × 2.5 mm ² or 1 × 4 mm ²
Standards	EN 60255-1, EN 60255-26, EN 60255-27

Documents

The manufacturer's original documents can be downloaded from the product page (QR code at the top of this sheet).

Technical datasheet: ELKO HRN-55 phase monitoring relay

Installation guide: ELKO HRN-55 phase monitoring relay

Request a quote or ask for more information

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Up-to-date information and documents: pap.fi/en/tuote/pap-vaihevahti-hrn-55/