

VARIMETER

Phase Sequence Monitor (Phase Sequence Relay)
IK 9179, RK 9179, SK 9179

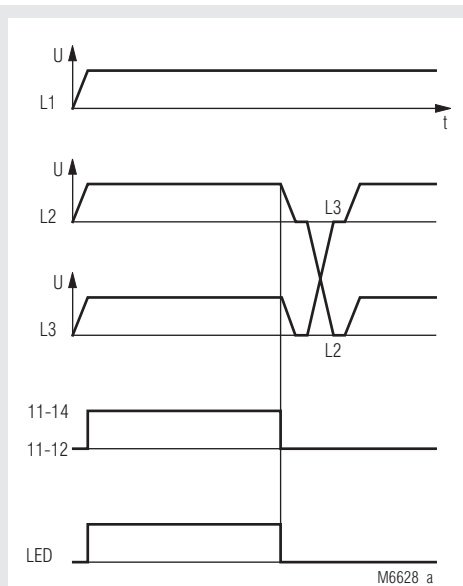


0225107



- According to IEC/EN 60255, DIN VDE 0435-303
- Detection of phase sequence in 3-phase systems
- Without auxiliary voltage
- Closed circuit operation
- LED indicator for phase sequence
- Output 1 changeover contact
- **Devices available in 2 enclosure versions:**
 - I- and R-model, e.g. IK 9169 with depth 61 mm or RK 9169 with depth 71 mm with terminals at the bottom for installation systems and industrial distribution systems according to DIN 43 880
 - S-model, e.g. SK 9169 depth 100 mm, with terminals at the top for cabinets with mounting plate and cable duct
- Width 17.5 mm

Function Diagram



Approvals and Marking



Applications

Detection of phase sequence in 3-phase systems. Disable start of motors with fixed direction of rotation in the case of wrong phase sequence

Indicators

LED: on, when output relay active (contact 11-14 closed)

Technical Data

Input

Nominal voltage U_N : 3 AC 400 V
Voltage range: 0.8 ... 1.1 U_N
Nominal frequency: 50 / 60 Hz
Frequency range: 45 ... 65 Hz

Output

Contact:

IK 9179.11, RK 9169, SK 9179: 1 changeover contact

Thermal current I_{th} : 4 A

Switching capacity

to AC 15:

NO contact: 3 A / AC 230 V IEC/EN 60 947-5-1

NC contact: 1 A / AC 230 V IEC/EN 60 947-5-1

Electrical life IEC/EN 60 947-5-1

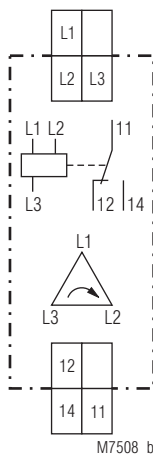
to AC 15 at 1 A, AC 230 V: typ. 300 000 switching cycles

Short-circuit strength

max. fuse rating: 4 A gL IEC/EN 60 947-5-1

Mechanical life: $\geq 30 \times 10^6$ switching cycles

Circuit Diagram



Technical Data

General Data

Operating mode: Continuous operation

Temperature range: - 20 ... + 60°C

Clearance and creepage distances

rated impuls voltage /

pollution degree

(between L1-L2-L3): 4 kV / 2 IEC 60 664-1

input/output: 4 kV / 2 IEC 60 664-1

EMC

Electrostatic discharge: 8 kV (air) IEC/EN 61 000-4-2

HF irradiation: 10 V/m IEC/EN 61 000-4-3

Fast transients: 2 kV IEC/EN 61 000-4-4

Surge voltages

between

wires for power supply: 2 kV IEC/EN 61 000-4-5

between wire and ground: 4 kV IEC/EN 61 000-4-5

Interference suppression: Limit value class B EN 55 011

Degree of protection

Housing: IP 40 IEC/EN 60 529

Terminals: IP 20 IEC/EN 60 529

Housing: Thermoplastic with V0 behaviour

according to UL subject 94

Vibration resistance: Amplitude 0.35 mm IEC/EN 60 068-2-6

frequency 10 ... 55 Hz

Climate resistance: 20 / 060 / 04 IEC/EN 60 068-1

Terminal designation: EN 50 005

Wire connection: 2 x 2.5 mm² solid or
2 x 1.5 mm² stranded ferruled

DIN 46 228-1/-2/-3/-4

Wire fixing: Flat terminals with self-lifting

clamping piece IEC/EN 60 999-1

Mounting: DIN rail IEC/EN 60 715

Weight

IK 9179: 60 g

RK 9179: 74 g

SK 9179: 77 g

Dimensions

Width x height x depth

IK 9179: 17.5 x 90 x 61 mm

RK 9179: 17.5 x 90 x 71 mm

SK 9179: 17.5 x 90 x 100 mm

Standard Types

IK 9179.11 3 AC 400 V 50/60 Hz

Article number: 0049182 stock item

RK 9179 3 AC 400 V 50/60 Hz

Article number: 0060273

SK 9179.11 3 AC 400 V 50/60 Hz

Article number: 0051576

• Output: 1 changeover contact

• Nominal voltage U_N : 3 AC 400 V

• Width: 17.5 mm