

Features

- The relay is designed to monitor undervoltage, phase loss, sequence and asymmetry in 3-phase network.
- Power supply from monitored circuit.
- Monitors the drop below the lower voltage level (Umin).
- The lower level of Umin is set in % of the selected range.
- Wide range of monitored voltage 208 – 480 V.
- Adjustable time delay (to eliminate short-term voltage drops).
- Measures true root mean square value of the voltage - TRUE RMS.
- Adjustable level of asymmetry with the option to turn it off.

RS PRO Monitoring Relay

766923



RS PRO is the own brand of RS. The RS PRO Seal of Approval is your assurance of professional quality, a guarantee that every part is rigorously tested, inspected, and audited against demanding standards. Making RS PRO the Smart Choice for our customers.

Product description

- The relay is designed to monitor undervoltage, phase loss, sequence and asymmetry in 3-phase network.
- Power supply from monitored circuit.
- Monitors the drop below the lower voltage level (U_{min}).
- The lower level of U_{min} is set in % of the selected range.
- Wide range of monitored voltage 208 – 480 V.
- Adjustable time delay (to eliminate short-term voltage drops).
- Measures true root mean square value of the voltage - TRUE RMS.
- Adjustable level of asymmetry with the option to turn it off.

Supply and measuring

Supply monitored terminals:	L1-L2-L3
Supply/monitored voltage:	AC 3× 208 – 480 V (50-60 Hz)
Consumption (max.):	2 VA/1 W
Range setting:	adjustable
Lower level setting (U_{min}):	80 – 95 %UN
Asymmetry setting:	adjustable, 2 – 10 %Un + OFF
Max. permanent voltage:	AC 3× 550 V
Peak overload (1 s):	AC 3× 600 V
Time delay (t_1):	2 s
Time delay (t_2):	adjustable, 0.3 – 30 s

Accuracy

Setting accuracy (mech.):	5 %
Repeat accuracy:	< 1 %
Temperature dependency:	< 0.1 %/°C (°F)
Hysteresis (fault to OK):	5 %

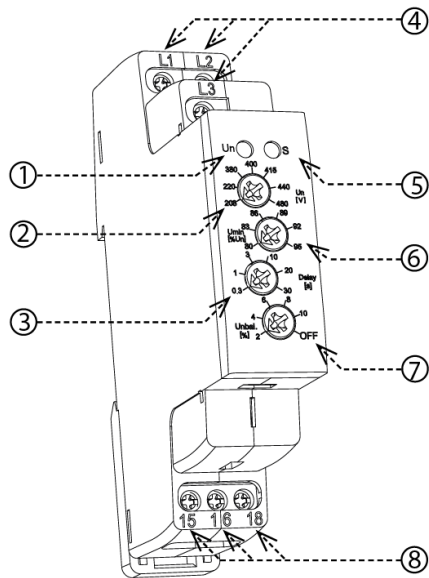
Output

Contact type:	1x changeover/SPDT (AgNi)
Current rating:	16 A/AC1; PD. B300
Breaking capacity:	4000 A/AC1, 384 W/DC1
Switching voltage:	250 V AC/24 V DC
Power dissipation (max.):	1.2 W
Mechanical life:	10.000.000. ops.
Electrical life (AC1):	100.000 ops.

Other information

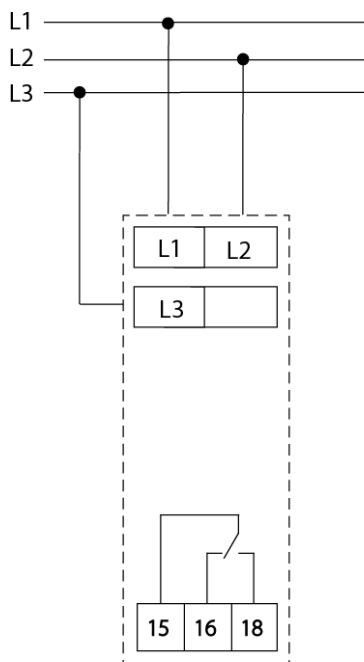
Operating temperature:	-20 .. +55 °C (-4 .. 131 °F)
Storage temperature:	-30 .. +70 °C (-22 .. 158 °F)
Dielectric strength:	AC 4 kV (supply – output)
Operating position:	any
Mounting:	DIN rail EN 60715
Protection degree:	IP40 front panel / IP20 terminals
Overvoltage category:	III.
Pollution degree:	2
Cross-wire section – solid/ stranded with ferrule (mm ²):	max. 1× 2.5, 2× 1.5 max. 1× 2.5 (AWG 14)
Dimensions:	90 × 52 × 66 mm
Weight:	66 g (2.32 oz)
Standards:	EN 60255-1, EN 60255-26, EN 60255-27

Description

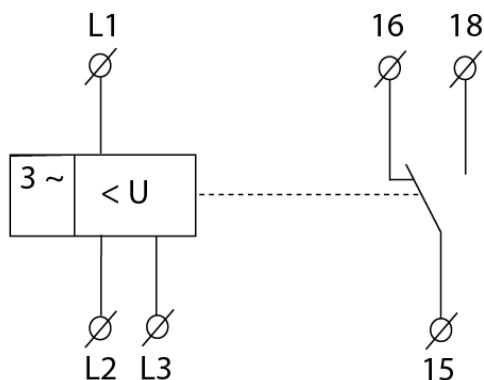


1. Supply voltage/time delay (t1) indication
2. Range setting
3. Time delay (t2)
4. Supply/monitored voltage terminals (L1-L2-L3)
5. Indication of operating states
6. Lower level setting (Umin)
7. Asymmetry setting
8. Output contact (15-16-18)

Connection

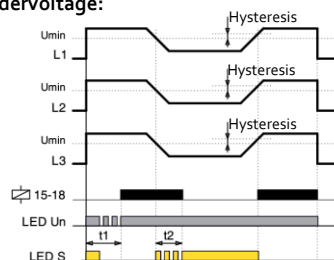


Symbol



Function

Undervoltage:

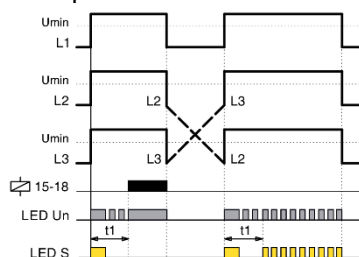


After connecting the device to the supply voltage, both LEDs on the panel will flash briefly.

If 3-phase voltage is connected to the monitoring relay and all conditions are met (correct voltage level, phase sequence and asymmetry), the output contact closes after the time delay t_1 elapsed.

During the time delay, the green „LED Un“ flashes, at the end of the delay „LED Un“ lights up continuously (OK state).

Phase sequence:



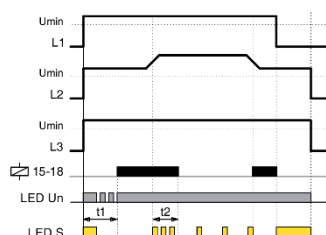
When the voltage drops below the lower level „Umin“ (HRN3-80 only), after the time delay t_2 has elapsed the green and red LEDs are lit. The output contact is open (fault state).

During the time delay t_2 , the red „LED S“ flashes quickly.

If the phase sequence is incorrect when the power supply is connected, after the time delay t_1 has elapsed the green and red LED flashes quickly. The output contact is open (fault state).

During the time delay t_1 , the green „LED Un“ flashes.

Phase asymmetry, failure:



When the set phase asymmetry is exceeded, after the time delay t_2 has elapsed the green LED is lit and the red LED flashes briefly. The output contact is open (fault state).

During the time delay t_2 , the red „LED S“ flashes quickly.

In the event of phase failure, the output contact opens without a time delay t_2 (fault state), the green and red LEDs are lit.