DATASHEET:
MONITORING-RELAYS UR5P3011
OUTPUT-RELAIS: 1 POTENTIAL FREE CHANGE OVER CONTACT

Order Code:
UR5P3011

1. FUNCTIONS

Monitoring of phase sequence, phase failure and asymmetry with adjustable asymmetry, connection of neutral wire optional.

2. TIME RANGES

Tripping delay: fixed, approx. 100 ms

3. INDICATORS

Green LED ON: indication of supply voltage
Yellow LED ON/OFF: indication of relay output

4. MECHANICAL DESIGN

Self-extinguishing plastic housing, IP rating IP40
Mounted on DIN-rail TS 35 according to EN 50022
Shockproof terminal connection according to VBG 4 (PZ1 required), IP rating IP20
Mounting position: any
Tightening torque: max. 1 Nm
Terminal capacity: 1 x 0.5 to 2.5 mm^2 with/without multicore cable end
1 x 4 mm^2 without multicore cable end
2 x 0.5 to 1.5 mm^2 with/without multicore cable end
2 x 2.5 mm^2 flexible without multicore cable end

5. INPUT CIRCUIT

Supply voltage:	(= measured voltage)
Terminals:	(N)-L1-L2-L3
Rated voltage Un:	3(N)~400/230V AC
Tolerance:	-30% to +30% of Un
Rated consumption:	8 VA (0,8 W)
Rated frequency:	AC 48 to 63 Hz
Duty cycle:	100%
Reset time:	500 ms
Hold-up time:	-
Drop out voltage:	>20% of the supply voltage
Overvoltage category:	III (according to IEC 60664-1)
Rated surge voltage:	4 kV

6. OUTPUT CIRCUIT

1 potential free change over contact

Rated voltage:	250 V AC
Switching capacity:	1250 VA (5 A /250 V AC)
Fusing:	5 A fast acting
Mechanical life:	20 x 10^6 operations
Electrical life:	2 x 10^5 operations at 1000 VA resistive load
Switching frequency:	max. 60/min at 100 VA resistive load
	max. 6/min at 1000 VA resistive load (according to IEC 947-5-1)
Overvoltage category:	III. (according to IEC 60664-1)
Rated surge voltage:	4 kV

7. MEASURING CIRCUIT

Measuring variable:	3(N)~, sinus, 48 to 63 Hz
Measuring input:	(=supply voltage)
Terminals:	(N)- L1- L2- L3
Overload capacity:	determined by tolerance specified for supply voltage
Input resistance:	-
Asymmetry:	5% to 25% adjustable, or disengageable
Overvoltage category:	III (according to IEC 60664-1)
Rated surge voltage:	4 kV

8. ACCURACY

Base accuracy:	±5% of maximum scale value
Adjustment accuracy:	≤5% of maximum scale value
Repetition accuracy:	±2%
Voltage influence:	-
Temperature influence:	≤0.05% / ° C

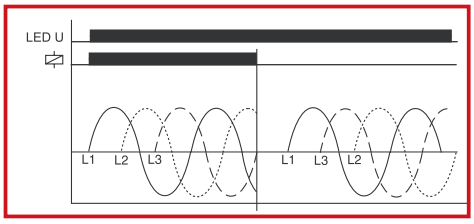
9. AMBIENT CONDITIONS

Ambient temperature:	-25 to +55° C (according to IEC 68-1)
Storage temperature:	-25 to +70° C
Transport temperature:	-25 to +70° C
Relative humidity:	15% to 85% (according to IEC 721-3-3 class 3K3)
Pollution degree:	2, if built in 3 (according to IEC 664-1)
Vibration resistance:	10 to 55 Hz 0.35 mm (according to IEC 68-2-6)
Shock resistance:	15 g 11 ms (according to IEC 68-2-27)

10. FUNCTIONS

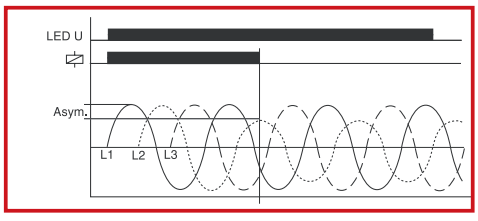
Phase sequence monitoring

When all the phases are connected in the correct sequence and the measured asymmetry is less than the fixed value, the output relay switches into on-position (yellow LED illuminated). When the phase sequence changes, the output relay switches into off-position (yellow LED not illuminated).



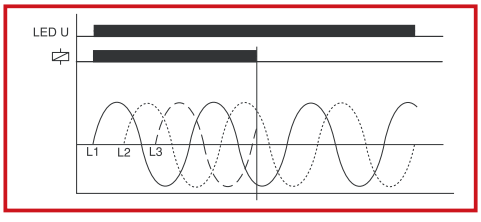
Asymmetry monitoring

The output relay R switches into off-position (yellow LED not illuminated) when the asymmetrie exceeds the value set at the ASYM-regulator. Reverse voltages of a consumer (e.g. a motor which continues to run on two phases only) do not effect the disconnection.

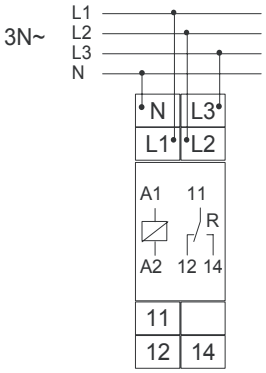


Phase failure monitoring

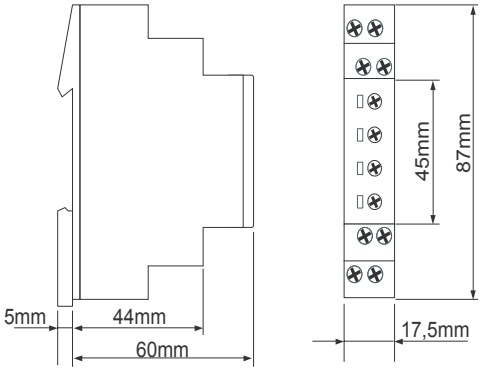
The output relay switches into off-position (yellow LED not illuminated), when one of the three phases fails.



11. CONNECTING DIAGRAM



12. DIMENSIONS



SPECIFICATIONS	DIM (WxHxD) mm	WEIGHT	PU	ORDERING INFORMATION
Monitoring-relays	17,5 x 87 x 65	72 g	1	UR5P3011