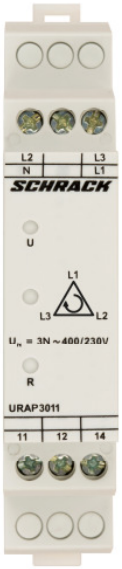
Datasheet: Phase-sequence-monitoringrelay, series AMPARO



SCHRACK-INFO

- Monitoring of phase sequence and monitoring of phase failure
- Supply voltage 400/230 V AC
- Connection of neutral is necessary
- 1 CO, 5A

Technical datas

Input circuit	
Terminals	L1-L2-L3-N
Supply voltage	400/230 V AC
Voltage supply tolerance	-30 / +15 %
Rated frequency	50 / 60 Hz
Duty cycle	100 %
Bridging time	10 ms
Reset time	500 ms
Drop-away voltage	<30%
Power loss	0,8 W

Measuring circuit		
Terminals		L1-L2-L3-N
Measure		Voltage 3-phase
Measurement methods		Rectified value
Monitoring function		Phase-sequence, phase-drop-out, asymetrie
Measuring range		400/230 V AC
Overload		(= supply voltage)
Thresholds	adjustable	no
	asymmetrie	fix 30%
Hysteresis		-

Time circles		
On delay	fixed	appr. 400 ms
Off delay		< 250 ms

Indicator		
Supply voltage	LED U (green) on	Supply voltage closed
Relay status	LED R (yellow) on	Relay is on

Output circuit		
Terminals		11-12-14
Type		Relay
Number of contacs	CO	1
Contact material		AgNi
Rated voltage		250 V
Max. switching voltage		250 V
Max. switching current		5A
Rated current		5 A / 250 V
Lifetime	mechanical	1 x 10^6 operation cycle
	electrical (AC-1)	1 x 10^5 operation cycle
Switching frequency	with load	6/min
	without load	300/min
Back up fuse		5A fast acting

Accuracy	
Basic accuracy	< 5 %
Setting accuracy	-
Repeatability	< 1 %
Influence of temperature	< 0,05 % / °C
Influence of voltage	-
Frequency influence	-

Standards		
Product standards		EN 61010-2-201: 2013
Immunity	EN 61326-1	Basic electromagnetic environment
Emission	EN 61326-1	Class B

Datas of insulation		
Pollution degree (IEC 61010-2-201)		2
Overvoltage category (IEC 61010-2-201)		II
Rated insulation voltage (IEC 61010-2-201)	Input circuit / outout circuit	300 V
Rated surge voltage (IEC 61010-2-201)	Input circuit / outout circuit	2.500 V
Insulation-test-voltage (IEC 61010-2-201)	Input circuit / outout circuit	1.500 V
Insulation	Input circuit / outout circuit	Basic insulation

Electrical connection		
Terminal design		Screw-terminal
Terminal capacity	Rated terminal capacity	2,5mm²
	Max. terminal capacity	
	flexible with/without ferrule	1x 0,25 ... 2,5 mm² (23 AWG ... 14 AWG)
	flexible without sleeve	2x 0,25 ... 1,5 mm² (23 AWG ... 14 AWG)
	flexible with twin-sleeve	2x 0,25 ... 1,5 mm² (23 AWG ... 14 AWG)
	Stranded without sleeve	1x 0,25 ... 2,5 mm² (23 AWG ... 14 AWG)
Length without insulation		7 mm
Tightening torque		max. 0,5 Nm

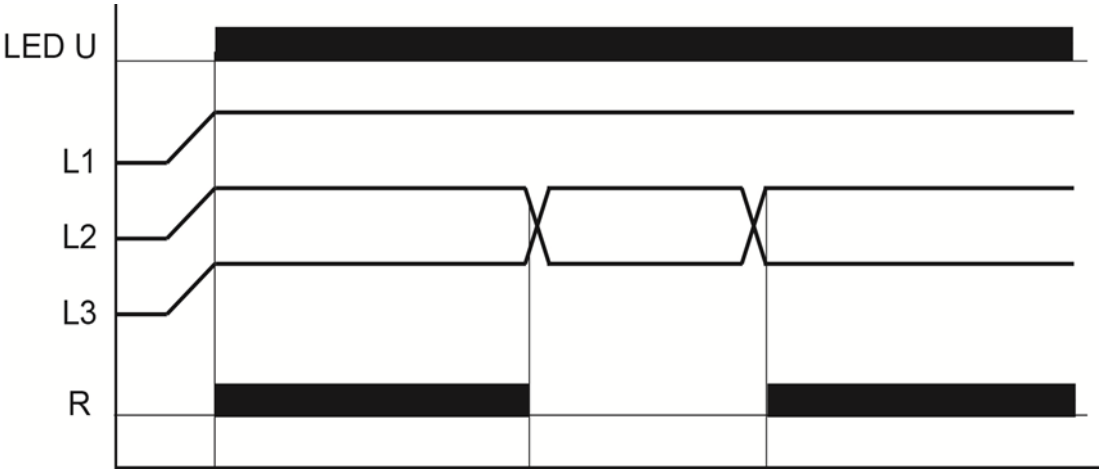
Mechanical datas		
Ambient temperature	Operation	-25 ... +50 °C
Dimensions (accord. DIN 43880)	LxHxD	17,5 x 97 x 57,9 mm
Mounting		DIN-rail (EN 60715)
Installation position		In any order
Protection class	Cover	IP40
	Terminals	IP20

Function

Monitoring of phase sequence

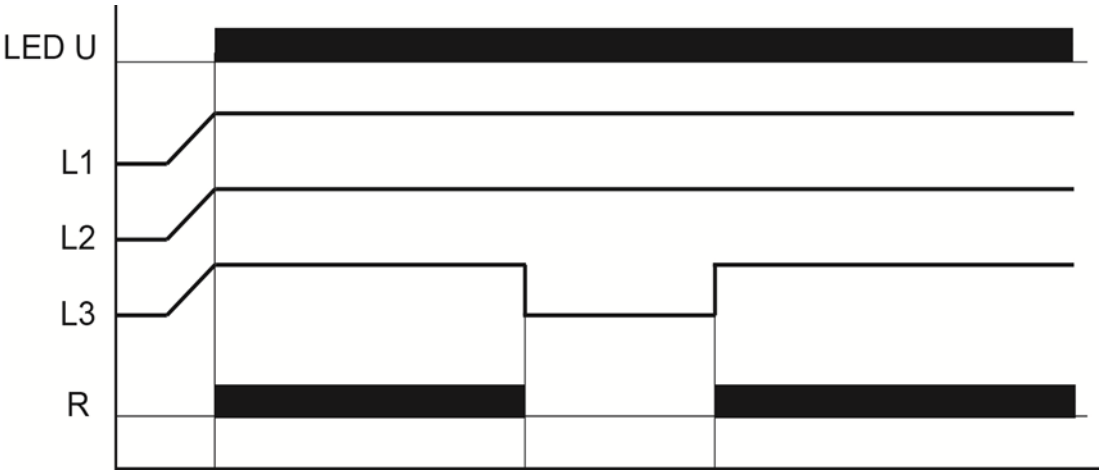
When all the phases are connected in the correct sequence and the measured asymmetry is less than the fixed value, the output relay switches into on-position.

When the phase sequence changes, the output relay switches into off-position.

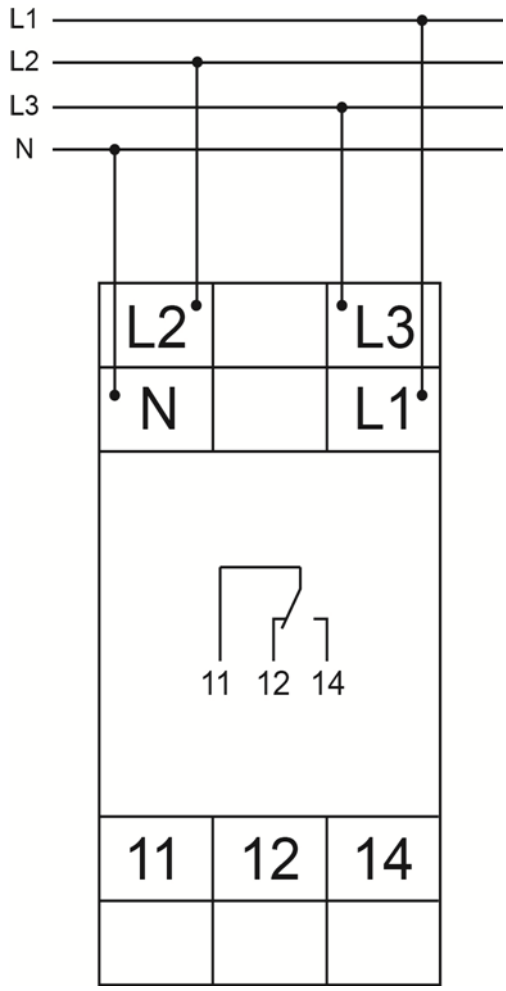


Phase failure monitoring

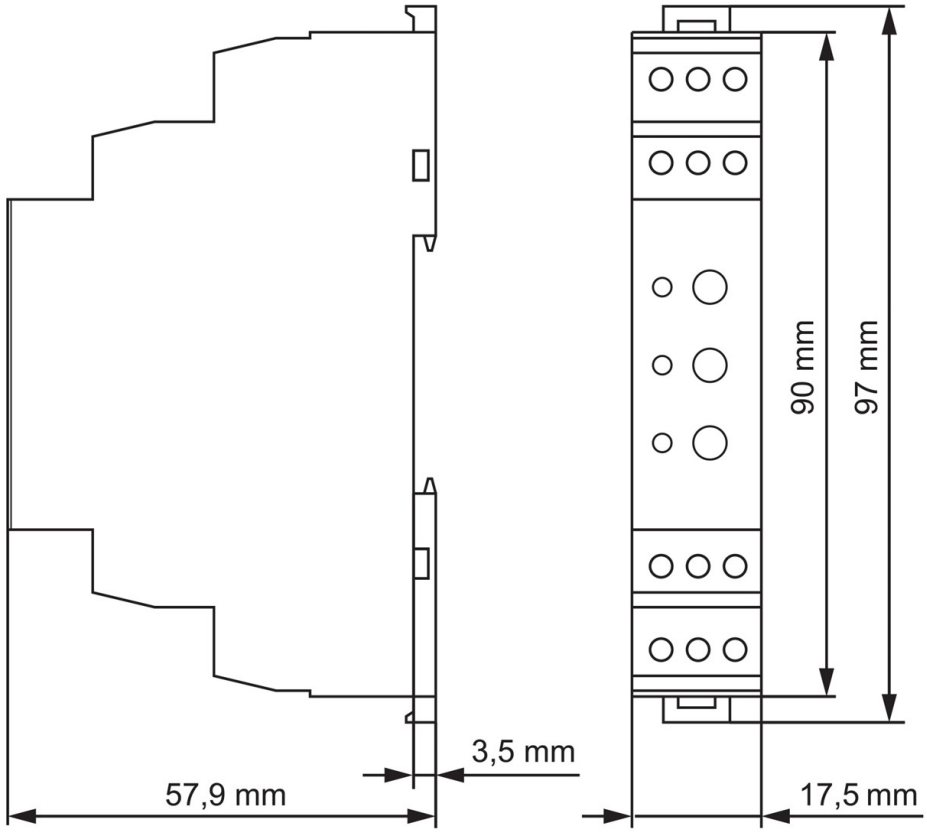
The output relay switches into off-position, when one of the three phases fails.



Wiring diagram



Dimensions



Articles

Description	Orderno.
Phase monitoring relay AMPARO, 400/230V AC, 1 CO, 5A	URAP3011--