DATA SHEET: UR5U3N11

- Undervoltage monitoring
- 1 change over contact
- Installation design

TECHNICAL DATA

1. Functions
Undervoltage monitoring in 3-phase mains (each phase against the neutral wire) with fixed threshold voltage US and fixed hysteresis.

2. Time range
Adjustment range
Tripping delay: fixed, approx. 200ms

3. Indicators
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 60715
Mounting position: any
Shockproof terminal connection according to VBG 4 (PZ1 required), IP rating IP20
Tightening torque: max. 1Nm
Terminal capacity:
- 1 x 0.5 to 2.5 mm² with/without multicore cable end
- 1 x 4 mm² without multicore cable end
- 2 x 0.5 bis 1.5 mm² with/without multicore cable end
- 2 x 2.5 mm² flexible without multicore cable end

5. Input circuit

Supply voltage:	(= measured voltage)
Terminals:	N-L1-L2-L3
Tolerance:	-30% to +15% of U_N
Rated voltage U_N:	3N~400/230V
Rated consumption:	5VA (0,6W)
Rated frequency:	AC 48 to 63Hz
Duty cycle:	100%
Reset time:	500ms
Hold-up time:	–
Drop out voltage:	determined by undervoltage detection (see measured circuit)
Overvoltage category:	III (in acc. with IEC 60661-1)
Rated surge voltage:	4kV

6. Output circuit
1 potential free change over contact

Rated voltage:	250V AC
Switching capacity:	1250VA (5A / 250V)
Fusing:	5A fast acting
Mechanical life:	20 x 10^6 operations
Electrical life:	2 x 10^5 operations at 1000VA resistive load
Switching frequency:	max. 6/min at 100VA resistive load (in acc. with IEC 60947-5-1)
Overvoltage category:	III (in acc. with IEC 60664-1)
Rated surge voltage:	4kV

7. Measuring circuit

Measuring variable:	AC sinus, 48 to 63Hz
Measuring input:	(= supply voltage)
Terminals:	N-L1-L2-L3
Overload capacity:	determined by tolerance specified for supply voltage
Input resistance:	–
Switching threshold U_S:	fixed 195,5V (L-N)
Hysteresis H:	approx. 5%
Overvoltage category:	III (in acc. with IEC 60664-1)
Rated surge voltage:	4kV

8. Accuracy

Base accuracy:	≤5% of nominal value
Adjustment accuracy:	–
Repetition accuracy:	≤2%
Voltage influence:	–
Temperature influence:	≤0,05% / °C

9. Ambient conditions

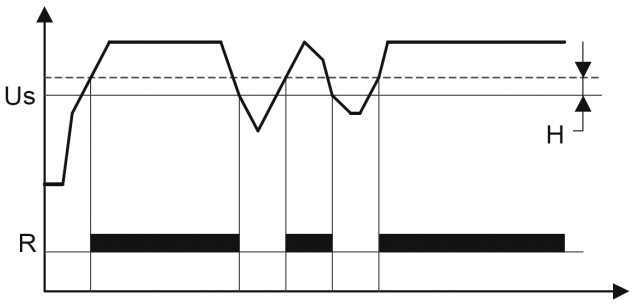
Ambient conditions:	-25 to +55°C
Storage temperatur:	-25 to +70°C
Transport temperature:	-25 to +70°C
Relative humidity:	15% to 85% (in acc. with IEC 60721-3-3 class 3K3)
Pollution degree:	2, if built-in 3 (in acc. with IEC 60664-1)

10. Weight
Single packing: 72g

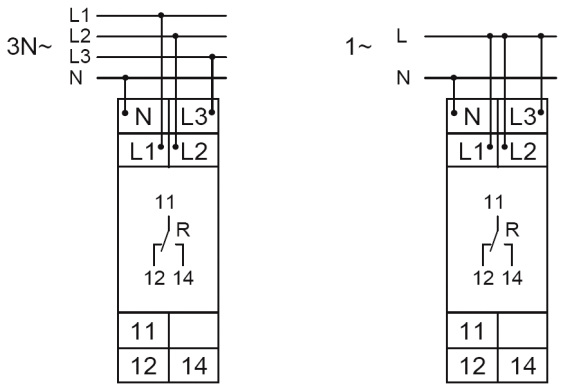
FUNCTIONS

Undervoltage monitoring for 3-phase AC mains with fixed threshold voltage U_S and fixed hysteresis. All measuring inputs (L1, L2 and L3) must be connected to phase voltage. If single or 2-phase monitoring is required, unused input terminals (L) must be connected to mains voltage to have proper L-N voltage on the terminals L1, L2 and L3. A phase failure can not be detected, if the reverse voltage coming from the load exceeds the threshold U_S.

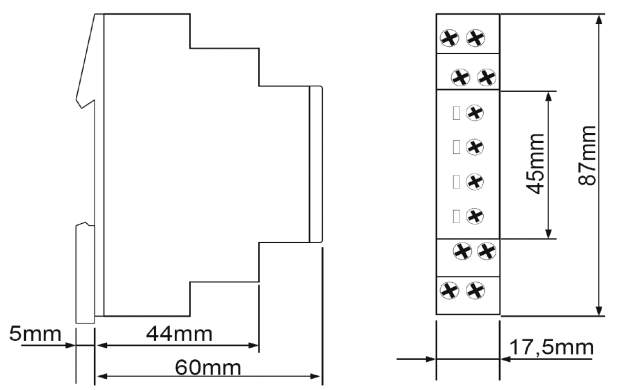
Undervoltage monitoring
The output relay R switches into on-position (yellow LED illuminated), when the measuring voltage of all connected phases exeeds the fixed threshold U_S by more than the fixed hysteresis H. When the voltage of one of the connected phases (L1, L2 or L3) falls below the fixed threshold, the output relay R switches into off-position again (yellow LED not illuminated).



CONNECTIONS



DIMENSIONS



DESCRIPTION	ORDER NUMBER
Voltage-monitoringrelay 3-phase to neutral, fixe Us=195,5V	UR5U3N11