

- AC voltage monitoring in 1-phase mains
- Multifunction
- 2 change over contacts
- Plug-in housing
- Width 38mm



Technical data

1. Functions

AC voltage monitoring in 1-phase mains with adjustable thresholds and adjustable hysteresis.

UNDER	Undervoltage monitoring
WIN	Monitoring the window between Min and Max

2. Time ranges

	Adjustment range
Start-up suppression time (Start):	-
Tripping delay (Delay):	-

3. Indicators

Green LED ON:	indication of supply voltage
Red LED ON/OFF:	indication of failure of the corresponding threshold
Yellow LED ON/OFF:	indication of relay output

4. Mechanical design

Self-extinguishing plastic housing, IP rating IP40
 Mounted on screw terminal socket 11-pols in accordance with IEC 60067-1-18a
 Mounting position: any
 Sockproof terminal connection according to VBG 4 (PZ1 required), IP rating IP20
 Tightening torque: max. 1Nm
 Terminal capacity:
 1 x 0.5 to 2.5mm² with/without multicore cable end
 1 x 4mm² without multicore cable end
 2 x 0.5 to 1.5mm² with/without multicore cable end
 2 x 2.5mm² flexible without multicore cable end

5. Input circuit

Supply voltage:	(= measuring voltage)
Pins:	S5-S7 / E-F
Rated voltage U_N :	see table ordering information or printing on the unit
Tolerance:	-30% to +20% of U_N
Rated consumption:	8VA (1W)
Rated frequency:	AC 48 to 63Hz
Duration of operation:	100%
Reset time:	500ms
Hold-up time:	-
Drop-out voltage:	>20% of supply voltage
Overvoltage category:	III (in accordance with IEC 60664-1)
Rated surge voltage:	4kV

6. Output circuit

2 potential free change over contacts	
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 1000VA resistive load (in accordance with IEC 60947-5-1)
Overvoltage category:	III (in accordance with IEC 60664-1)
Rated surge voltage:	4kV

7. Measuring circuit

Measuring variable:	AC Sinus, 48 to 63Hz
Measuring input:	(= supply voltage)
Pins:	S5-S7 / E-F
Overload capacity:	determined by tolerance specified for supply voltage
Input resistance:	-
Switching threshold U_S :	
Max:	80% to 120% of U_N
Min:	70% to 110% of U_N
Hysteresis H:	adjustable
Overvoltage category:	III (in accordance with IEC 60664-1)
Rated surge voltage:	4kV

8. Accuracy

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

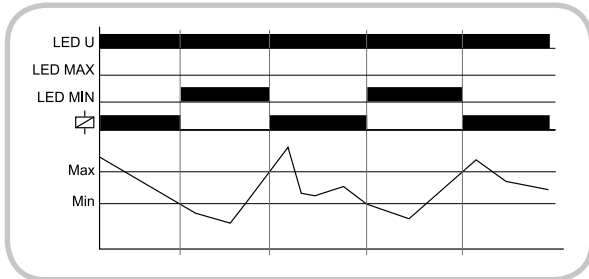
9. Ambient conditions

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

Functions

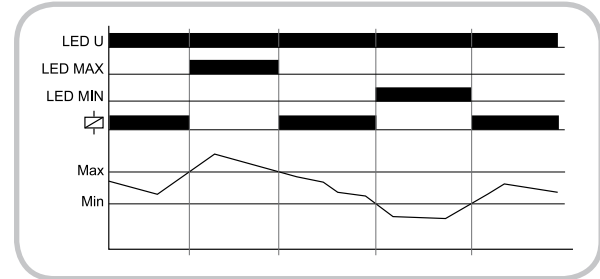
Undervoltage monitoring (UNDER)

When the supply voltage U is applied, the output relay R switches into on-position, if the measured voltage is beyond the Min-value. When the measured voltage falls below the Min-value, the output relay R switches into off-position. The output relay R switches into on-position again, if the voltage exceeds the Max-value.

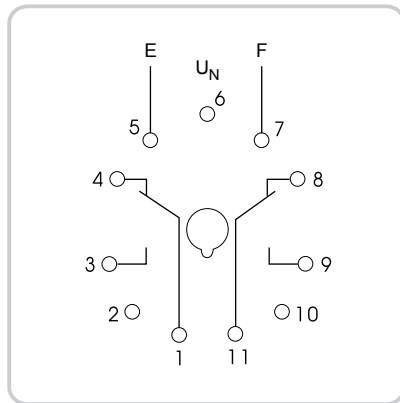


Window function (WIN)

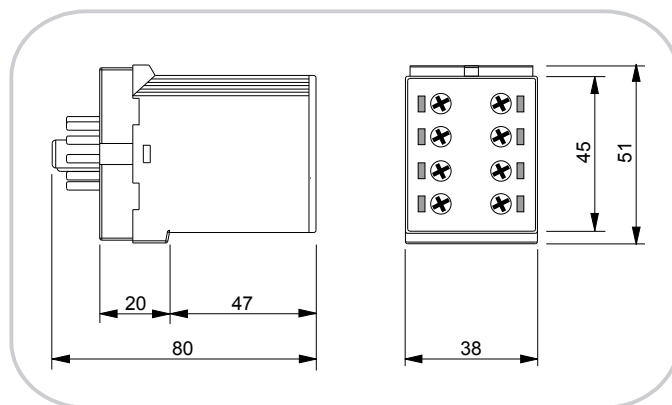
When the supply voltage U is applied, the output relay R switches into on-position, if the measured voltage is within the adjusted window. When the measured voltage left the window between Min and Max, the output relay R switches into off-position. The output relay R switches into on-position again, if the voltage re-enter the adjusted window.



Connections



Dimensions



Ordering information

Type	Rated voltage U_N	Functions	Switching threshold U_s	Hysteresis	Part Nr. (PQ 1)
K3UM230VAC02	230V AC	U, W	Max: 80% to 120% of U_N Min: 70% to 110% of U_N	adjustable	1380107