AC current monitoring in 1-phase mains

E1IU5AAC01

Monitoring relays - ENYA series

Undercurrent monitoring

1 change over contact

Width 17.5 mm

Installation design

Technical data

1. Functions
AC current monitoring in 1-phase mains with adjustable threshold and fixed hysteresis.

UNDER	Undercurrent monitoring

2. Time ranges

	Adjustment range
Tripping delay (Delay):	-

3. Indicators

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

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 2.5mm² 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:	230V AC
Terminals:	Li-N
Tolerance:	-15% to +15% of U_N
Rated voltage :	5VA (0.8W)
Rated frequency:	AC 48 to 63Hz
Duration of operation:	100%
Reset time:	500ms
Wave form:	Sinus
Hold-up time:	-
Drop-out voltage:	>20% of rated voltage
Overvoltage category:	III (in accordance with IEC 60664-1)
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 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:	5A AC
Terminals:	Li, Lk
Overload capacity:	7A (I>5A - distance > 5mm)
Starting current:	
1s	40A
3s	20A
Input resistance:	10mΩ
Switching threshold Is:	see table ordering information or printing on the unit
Hysteresis H:	see table ordering information or printing on the unit
Overvoltage category:	III (in accordance with IEC 60664-1)
Rated surge voltage:	4kV

8. Accuracy

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

9. Ambient conditions

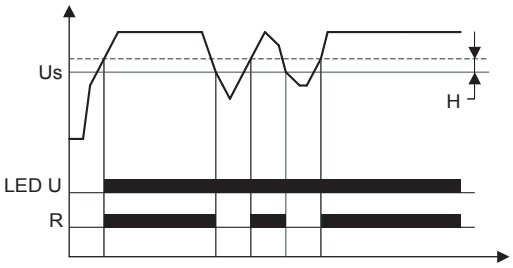
Ambient conditions:	-25 to +55°C
Storage temperatur:	-25 to +70°C
Transport temperature:	-25 to +70°C
Relative humidity:	15% to 85% (in accordance with IEC 60721-3-3 class 3K3)
Pollution degree:	2, if built-in 3 (in accordance with IEC 60664-1)

10. Weight

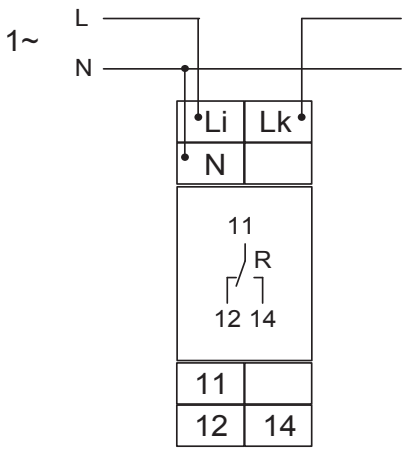
Single packing:	70g
Package of 10pcs:	660g per package

Functions

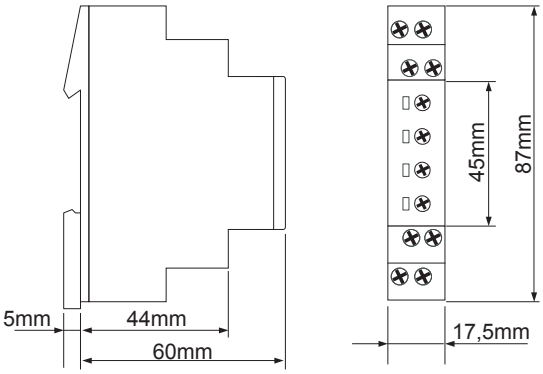
Undercurrent monitoring (UNDER)
When the measured current falls below the value adjusted at the Min-regulator, the output relay R switches into off-position (yellow LED not illuminated). When the measured current exceeds the value adjusted at the Min-regulator plus the hysteresis, the output relay R switches into on-position again (yellow LED illuminated),



Connections



Dimensions



Ordering information

Type	Rated voltage U_N	Functions	Switching threshold U_s	Delay	Hysteresis	Part. No.
E1IU5AAC01	230V AC	U	10% to 110% of I_N	-	fixed 10%	1340201