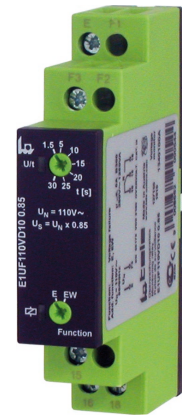




Monitoring relays - ENYA series
 Undervoltage monitoring
 Optional timing function
 Supply voltage = measuring voltage
 1 change over contact
 Width 17.5 mm
 Installation design



Technical data

1. Functions

AC undervoltage monitoring in 1-phase mains with fixed threshold and optional timing function.

Timing functions:

E	ON delay at start up
EW	Delayed single shot

2. Time ranges

	Adjustment range
Tripping delay:	fixed, approx. 150ms
ON delay t:	1.5 to 30s
Pulse width for single shot t:	fixed, 150ms (function code EW)

3. Indicators

Green LED U/t ON:	indication of supply voltage
Green LED U/t flashes:	indication of time period
Yellow LED R 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 2.5mm² 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) terminals F3-E
Nominal voltage U_N :	110V a.c.
Tolerance:	-15% to +10%
Rated consumption:	3VA (0,8W)
Rated frequency:	a.c. 48 to 63Hz
Duty cycle:	100%
Reset time:	500ms
Hold-up time:	app. 20ms (using function E) app. 20ms (using function EW)
Residual ripple for d.c.:	-
Drop out voltage:	determined by undervoltage detection
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 a.c.
 Switching capacity: 1250VA (5A / 250V)
 Fusing: 5A fast acting
 Mechanical life: 15 x 10⁵ operations
 Electrical life: 2 x 10⁵ 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

Measured variable: voltage a.c. sinus, 48 to 63Hz
 (= supply voltage)
 Measuring input: terminals F3-E
 Overload capacity: determined by tolerance
 specified for supply voltage
 Input resistance: -
 Switching threshold U_S : fixed, 93.5V
 Hysteresis H: approx. 5%
 Overvoltage category: III (in accordance with IEC 60664-1)
 Rated surge voltage: 4kV

8. Accuracy

Base accuracy: ±5% of normal voltage
 Adjustment accuracy: -
 Repetition accuracy: ≤1%
 Voltage influence: -
 Temperature influence: ≤0,1%/°C

9. Ambient conditions

Ambient temperature: -25 to +55°C
 (in accordance with IEC 60068-1)
 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, (in accordance with IEC 60664-1)

10. Weight

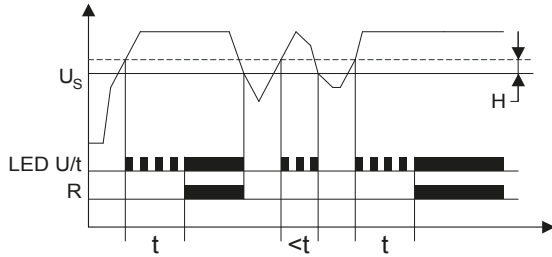
Single packing: 72g
 Package 10pcs: 670g per Package

Functions

Undervoltage monitoring for single phase AC mains with fixed threshold U_s and fixed hysteresis for restart. Depending on the specific model, optional timing functions are available additionally.

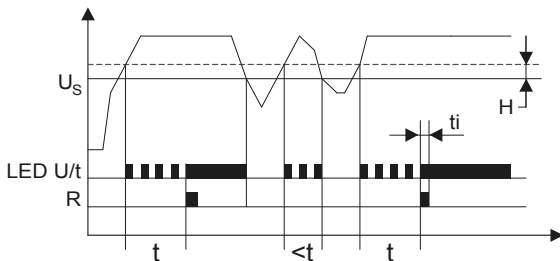
Undervoltage monitoring with ON delay (E)

When the applied voltage exceeds the threshold voltage U_s by more than the fixed hysteresis H , the adjustable period of time t starts (green LED U/t flashes). After the interval t has expired, the output relay R energizes (green LED U/t and yellow LED R are illuminated). When the applied voltage falls below the fixed threshold U_s , the output relay R switches into off-position (green LED U/t and yellow LED R not illuminated). When the applied voltage drops below the limit U_s during the timing period t , period t will start from the beginning after the next rise of voltage.

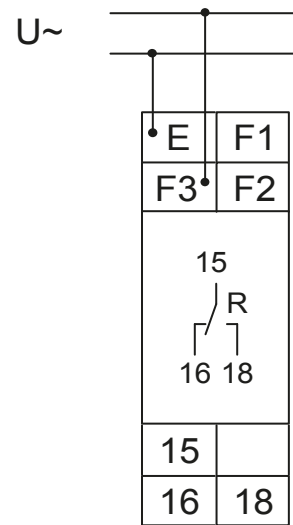


Reset-pulse after undervoltage / Brown Out (EW)

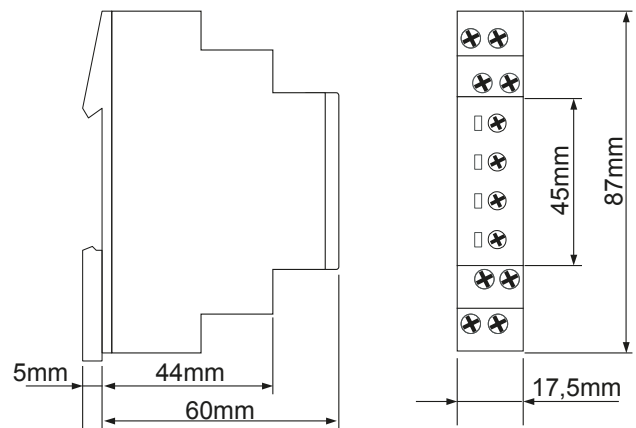
When the applied voltage exceeds the threshold voltage U_s by more than the fixed hysteresis H , the adjustable period of time t starts (green LED U/t flashes). After the interval t has expired, the output relay R will do a single shot with the pulse width t_i (green LED U/t illuminated, yellow LED R flashes during t_i). When the applied voltage falls below the threshold U_s , undervoltage is detected (green LED U/t and yellow LED R not illuminated). The period t restarts (green LED U/t flashes), if the applied voltage rises again. After the interval t has expired, the output relay R will produce another single shot. When the applied voltage drops below the limit U_s during timing period t , period t will start from the beginning after next rise of voltage.



Connections



Dimensions



Ordering information

Type	Nominal voltage U_N	Time functions	Threshold U_s	Time t	Part. No.
E1UF110DV10 0.85	110V AC	E, EW	93.5V	1.5 ... 30s	1340100A



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Subject to alterations and errors

