



- Star – Delta start - up
- 4 Time rangers, 2 change over contacts
- Wide input voltage range 12-240V AC/DC
- Low power consumption - <2.5 VA or < 1.5 W - high energy efficiency
- Installation design DIN 35mm
- Width 17.5mm
- For industrial applications
- In accordance with PN - EN 61812-1



Technical data

Output circuit		MTR17-TTZ-U240--216
Contact arrangement		2 form C ❶
Rated voltage	V AC	250/400
Switching current range AC1	A/V AC	16/250
	A/V DC	16/24
Switching load range AC1	VA	4 000
Contact resistance	mΩ	≤ 100 max.(at 1A 6 VDC)
Max. rated current	A	12 ❷
Input circuit		
Supply voltage U _n AC/DC (AC:50-60Hz)	V	12...240
Tolerance		0,8...1,1U _n (9,6...264V)
Rated consumption AC	VA	≤ 2,5
	W	≤ 2
Rated frequency	Hz	47...63
Insulation		
Insulation rated voltage	V AC	250
Rated surge voltage	V	2 500 1,2/50μs
Overvoltage category		III
Dielectric strength		
	V AC	4 000
• Input - output		1 000
• Open contact		
General data		
Electrical life AC1 at 1000 VA resistive load		≥ 1,5 x 10 ⁵ operations
Mechanical life		≥ 3 x 10 ⁷ operations
Dimensions (L x W x H) / Weight	mm / g	90 x 17,5 x 66 / 71g
Ambient temperature / storage temperature	°C	-40...+55 / -20...+70
IP rating		IP20
Relative humidity	%	to 85
Shock resistance	g	15
Vibration resistance	mm	0,35 10...55Hz
Time module data		
Functions		TTZ
Time ranges		1s, 10s, 1m, 10m, (1h),
Timing adjustment		smooth 0,1...1,0 x time range
Setting accuracy	%	5% ❸
Repeatability	%	0,5% or +/-5 ms
Recovery time	ms	≤ 100

- ❶ 2 potential free change over contacts.
- ❷ Maximum rated current together of all the relay contacts.
- ❸ Of minimum scale value.



Indicators

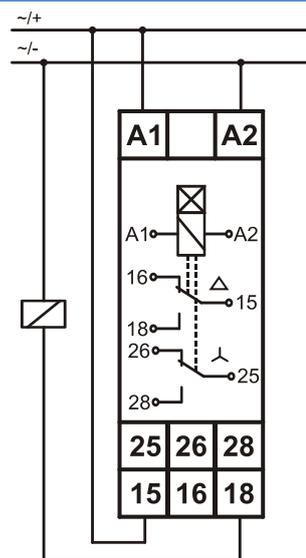


Green LED ON: indication of supply voltage delta-contactor in on-position (terminals 25-28)
 Green LED flashes: indication of time period - start-up time
 Yellow LED ON/OFF: indication of star-conductor (terminals 15-18)

Description

The timers in the MTR17 series in the installation design style, feature the newly developed case front which makes optimum use of the space available within the overall front width of 17.5mm. With the universal supply of 12V AC/DC to 240V AC/DC and different functions it is possible to find solutions even to the most challenging problems. The brain chip of your application-specific miniature controller is the ideal solution for realizing custom control applications within minimum space at low-cost.

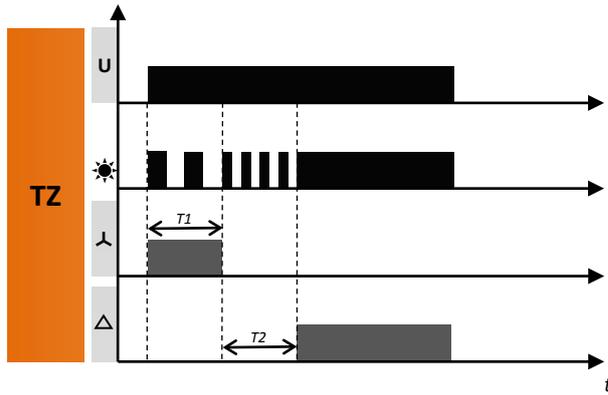
Connections



Mounting

Relays are designed for direct mounting on 35 mm rail mount acc. to PN-EN 60715. Operational position - any.
 Connections: max. cross section of the cables: 1 x 2,5 mm² / 2 x 1,5 mm² (1 x 14 / 2 x 16 AWG), length of the cable deinsulation: 6,5 mm, max. tightening moment for the terminal: 0,6 Nm.

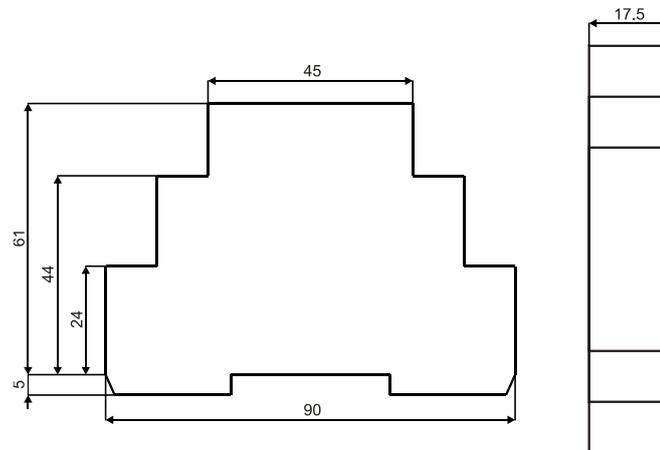
Time functions



Star-Delta start-up (TZ)

When the supply voltage U is applied, the output relay for the star contactor switches into on-position (yellow LED illuminated) and the set star interval T1 begins (green LED flashes slowly). After the star interval T1 has expired (green LED flashes rapidly), the output relay for the star contactor switches into off position (yellow LED not illuminated) and the set transit interval T2 begins. After the transit interval has expired, the output relay for the delta contactor switches into on-position (green LED illuminated). To restart the function, the supply voltage must be interrupted and reapplied.

Dimensions



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