

- Installation design
- Width 35mm
- Star-Delta start-up
- 2 normally open contacts



## ► Technical data

### ► 1. Functions

S Star-Delta start-up

### ► 2. Time ranges

Start-up time		
Time range	Adjustment range	
10s	500ms	10s
30s	1500ms	30s
1min	3s	1min
3min	9s	3min

Transit time	
Time ranges (fixed)	
40ms	
60ms	
80ms	
100ms	

### ► 3. Indicators

Green LED ON: indication of supply voltage delta-contactor in on-position (terminals 17-28)

Yellow LED ON/OFF: indication of star-contactor (terminals 17-18)

### ► 4. Mechanical design

Self-extinguishing plastic housing, IP rating IP40  
 Mounted on DIN-Rail TS 35 according to EN 50022  
 Mounting position: any  
 Shockproof terminal connection according to VBG 4 (PZ1 required), IP rating IP20  
 Initial torque: max. 1Nm  
 Terminal capacity:  
 1 x 0.5 to 2.5mm<sup>2</sup> with/without multicore cable end  
 1 x 4mm<sup>2</sup> without multicore cable end  
 2 x 0.5 to 1.5mm<sup>2</sup> with/without multicore cable end  
 2 x 2.5mm<sup>2</sup> flexible without multicore cable end

### ► 5. Input circuit

Supply voltage:  
 24V DC terminals A1(+)-A3  
 24V AC terminals A1-A3  
 110 to 240V AC terminals A1-A2

Tolerance:  
 24V DC ±10%  
 24V AC -15% to +10%  
 110 to 240V AC -15% to +10%

Rated frequency: 48 to 63Hz

Rated consumption:  
 24V AC/DC 1.5VA (1W)  
 110V AC 2VA (1W)  
 230V AC 8VA (1.3W)

Duration of operation: 100%  
 Reset time: 100ms  
 Residual ripple for DC: 10%  
 Drop-out voltage: >30% of the supply voltage

### ► 6. Output circuit

2 potential free normally open contacts  
 Switching capacity (distance < 5mm): 1250VA (5A / 250V AC)  
 Switching capacity (distance > 5mm): 2000VA (8A / 250V AC)  
 Fusing: 8A fast acting  
 Mechanical life: 20 x 10<sup>6</sup> operations  
 Electrical life: 2 x 10<sup>5</sup> operations at 1000VA resistive load  
 Switching frequency: max. 60/min at 100VA resistive load max. 6/min at 1000VA resistive load (according to IEC 947-5-1)  
 Insulation voltage: 250V AC (according to IEC 664-1)  
 Surge voltage: 4kV, overvoltage category III (according to IEC 664-1)

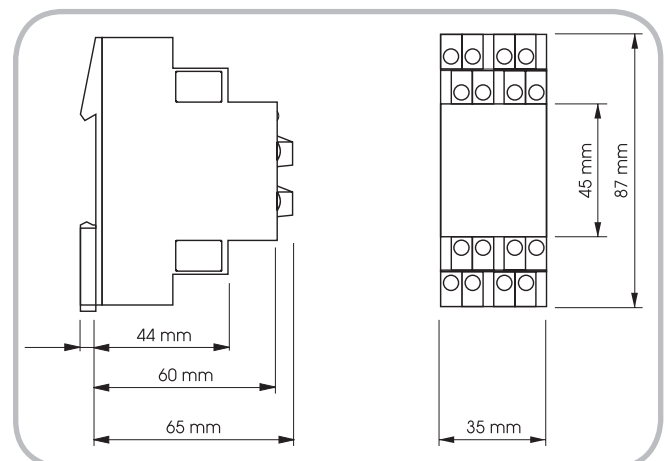
### ► 7. Accuracy

Base accuracy: ±1% (of maximum scale value)  
 Adjustment accuracy: ≤5% (of maximum scale value)  
 Repetition accuracy: <0.5% or ±5ms  
 Voltage influence: -  
 Temperature influence: ≤0.01% / °C

### ► 8. Ambient conditions

Ambient temperature: -25 to +55°C (according to IEC 68-1)  
 Storage temperature: -25 to +70°C  
 Transport temperature: -25 to +70°C  
 Relative humidity: 15% to 85% (according to IEC 721-3-3 class 3K3)  
 Pollution degree: 2, if built-in 3 (according to IEC 664-1)

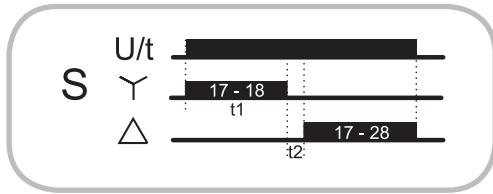
### ► 9. Dimensions



## Functions

### Star-Delta start-up (S)

When the supply voltage  $U$  is applied (green LED illuminated), the contact for the star-contactor switches into on-position (yellow LED illuminated) and the set star-time  $t_1$  begins. After the interval  $t_1$  has expired the contact switches into off-position (yellow LED not illuminated) and the set transit-time  $t_2$  begins. After the interval  $t_2$  has expired the contact for the delta-contactor switches into on-position. To restart the function the supply voltage must be interrupted and re-applied.



## Connections

