

- ▶ Star-Delta start-up
- ▶ Zoom voltage 24 to 240V AC/DC
- ▶ 2 change over contacts
- ▶ Width 22.5mm
- ▶ Industrial design



## 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 range (fixed)
40ms
60ms
80ms
100ms

### 3. Indicators

Green LED ON: indication of supply voltage  
delta-contactor in on-position  
(terminals 25-28)

Green LED flashes: indication of star-time  
Yellow LED ON/OFF: indication of star-contactor  
(terminals 15-18)

### 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  
Tightening 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:  
24 to 240V AC/DC terminals A1-A2 (galvanically separated)  
Tolerance:  
24 to 240V DC -20% to +25%  
24 to 240V AC -15% to +10%  
Rated frequency:  
24 to 240V AC 48 to 400Hz  
48 to 240V AC 16 to 48Hz  
Rated consumption: 4.5VA (1W)  
Duration of operation: 100%  
Reset time: 500ms  
Wave form for AC: Sinus  
Residual ripple for DC: 10%  
Drop-out voltage: >15% of the supply voltage  
Overvoltage category: III (according to IEC 60661-1)  
Rated surge voltage: 4kV

### 6. Output circuit

2 potential free change over contacts  
Rated voltage: 250V AC  
Switching capacity (distance <5mm): 750VA (3A / 250V AC)  
Switching capacity (distance >5mm): 1250VA (5A / 250V AC)  
Fusing: 5A fast acting  
Mechanical life: 20 x 10<sup>6</sup> operations  
Electrical Life: 2 x 10<sup>5</sup> operations  
at 1000VA resistive load  
max. 60/min at 100VA resistive load  
max. 6/min at 1000VA resistive load  
(according to IEC 947-5-1)  
Overvoltage category: III (according to IEC 60664-1)  
Rated surge voltage: 4kV

### 9. Accuracy

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

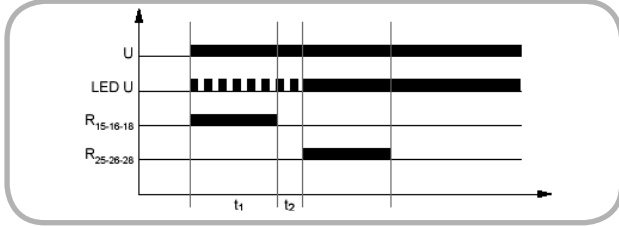
### 10. Ambient conditions

Ambient temperature: -25 to +55°C (according to IEC 68-1)  
-25 to +40°C (according to UL 508)  
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: 3 (according to IEC 664-1)  
Vibration resistance: 10 to 55Hz 0.35mm  
(according to IEC 68-2-6)  
Shock resistance: 15g 11ms (according to IEC 68-2-27)

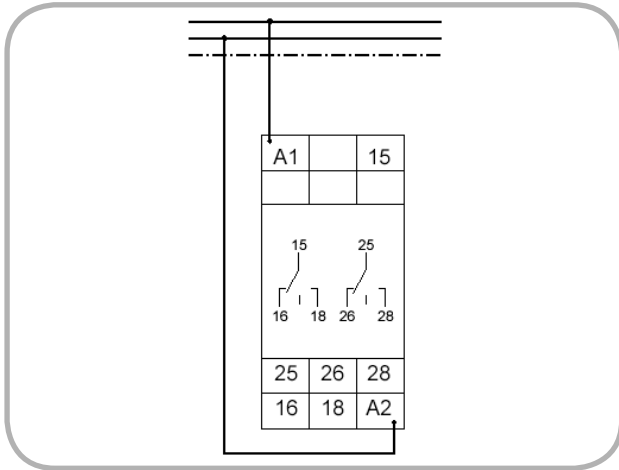
## ► Functions

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

When the supply voltage U is applied, the star-contact switches into on-position (yellow LED illuminated) and the set star-time  $t_1$  begins (green LED flashing). After the interval  $t_1$  has expired (green LED illuminated) the star-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 delta-contact switches into on-position. To restart the function the supply voltage must be interrupted and re-applied.



## ► Connections



## ► Dimensions

