

- ▶ Plug-in housing
- ▶ Width 38mm
- ▶ Star-Delta start-up
- ▶ 2 change over 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 range (fixed)
40ms
60ms
80ms
100ms

### ▶ 3. Indicators

Green LED ON: indication of supply voltage delta-contactor in on-position (pins S9-S11)  
 Green LED flashes: indication of star-time  
 Yellow LED ON/OFF: indication of star-contactor (pins S1-S3)

### ▶ 4. Mechanical design

Self-extinguishing plastic housing, IP rating IP40  
 Mounted on screw terminal socket 11 poles according to IEC 67-1-18a (Type R11X or ES12)  
 Mounting position: any

### ▶ 5. Input circuit

Supply voltage:  
 24V DC pins S2(+)-S7  
 24V AC pins S2-S7  
 110 to 240V AC pins S2-S10  
 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 change over 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  
 max. 60/min at 100VA resistive load  
 max. 6/min at 1000VA resistive load (according to IEC 947-5-1)  
 Switching frequency: 250V AC (according to IEC 664-1)  
 Insulation voltage: 4kV, overvoltage category III (according to IEC 664-1)  
 Surge voltage:

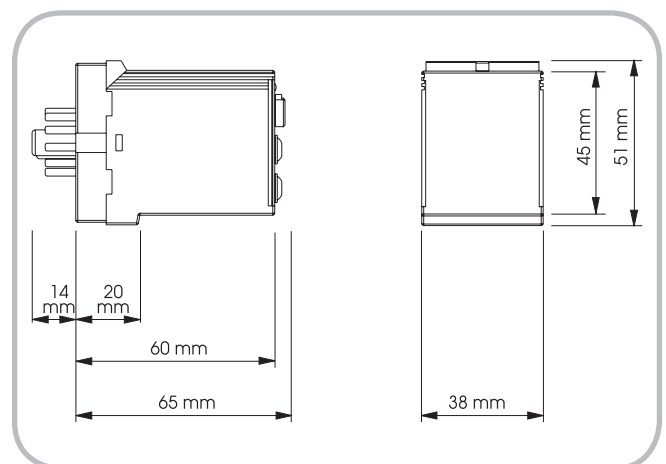
### ▶ 7. Accuracy

Base accuracy: ±1% (of maximum scale value)  
 Adjustment accuracy: ≤5% (of maximum scale value)  
 Repetition accuracy: <0.5% or ±5ms  
 Voltage influence: -  
 Temperature influence: ≤0.02% / °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: 3 (according to IEC 664-1)

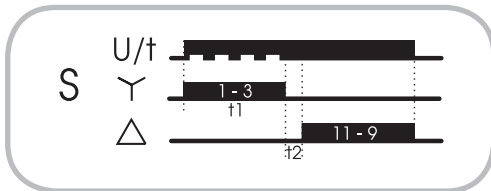
### ▶ 9. Dimensions



## Functions

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

When the supply voltage  $U$  is applied, the contact for the star-contactor switches into on-position (yellow LED illuminated) and the set star-time  $t_1$  begins (green LED flashes). After the interval  $t_1$  has expired (green LED illuminated) 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

