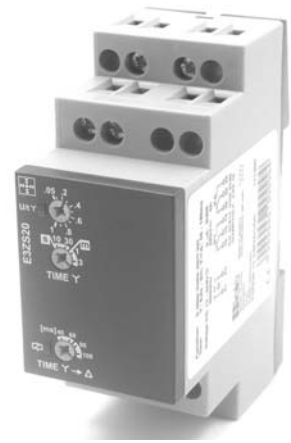


- ▶ Star-Delta start up
- ▶ 2 change-over contacts
- ▶ Width 35 mm
- ▶ Installation design



Technical data

1. Functions

S Star-delta start up

2. Time ranges

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

Transit time (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 time period 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 2.5mm² 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: terminals A1(+)-A2
- Types E3Z..12-240VAC/DC: 12 to 240V AC/DC
- Tolerance: 12V-10% to 240V+10%
- Rated consumption: 4VA (1.5W)
- Rated frequency: AC 48 to 63Hz
- Duty cycle: 100%
- Reset time: 100ms
- Residual ripple to DC: 10%
- Drop-out voltage: >30% of the supply voltage
- Overvoltage category: III (according to IEC 60664-1)
- Rated surge voltage: 4kV

6. Output circuit

- 2 potential free change over contacts
- Rated surge: 250V AC
- Switching capacity: 2000VA (8A / 250V)
- Fusing: 8A fast acting
- Mechanical life: 20 x 10⁶ operations

- Electrical life: 2 x 10⁵ 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)
- Overvoltage category: III. (according to IEC 60664-1)
- Rated surge voltage: 4kV

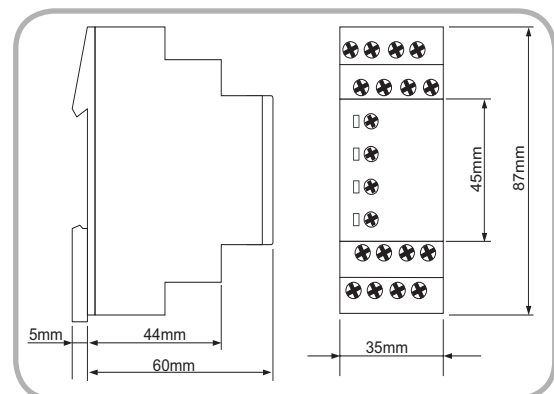
7. Accuracy

- 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 Klasse 3K3)
- Pollution degree: 2, if built in 3 (according to IEC 664-1)
- Vibration resistance: 10 to 55 Hz 0.35mm (according to IEC 68-2-6)
- Shock resistance: 15g 11ms (according to IEC 68-2-27)

9. Dimensions



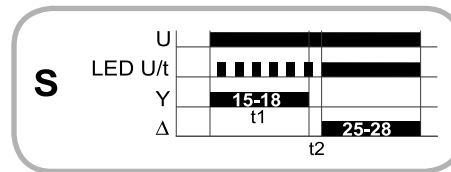
11. Weight

- Single packing: 106g

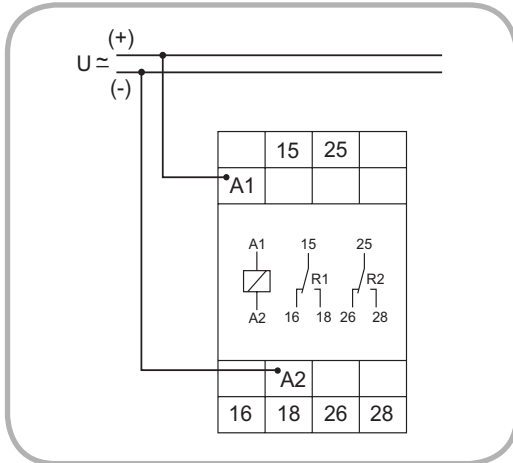
► Functions

Star-Delta start up

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 U/t flashes). After the interval t_1 has expired (green LED U/t 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 contact for the delta-contactor switches into on-position. To restart the function the supply voltage must be interrupted and re-applied.



► Connections



► Ordering information

Types	Functions	Supply voltage	Part Nr. (PQ 1)
E3ZS20 12-240V AC/DC	S	12-240V AC/DC	111300