# Timers - StarDelta start-up

**ENYA** series

4 Time ranges (Start-up time)

Wide input range

2 change over contacts

Width 35mm

Installation 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 (fixed)

40ms 60ms 80ms 100ms

#### 3. Indicators

Green LED U/t ON: indication of supply voltage delta-contactor in on-

position (terminals 25-28)

Green LED U/t flashes: indication of time period - start-up time Yellow LED ON/OFF: indication of star-conductor (terminals 15-18)

#### 4. Mechanical design

Self-extinguishing plastic housing, IP rating IP40 Mounted on DIN-rail TS 35 according to EN 60715

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

12 to 240V AC/DC Supply voltage: Terminals: A1(+)-A2 -10% to +10% Tolerance: Rated consumption: 4VA (1.5W) Rated frequency: AC 48 to 63Hz 100% Duty cycle: Reset time: 100ms Residual ripple to DC: 10%

Drop-out voltage: >30% of minimum rated supply voltage
Overvoltage category: III (in accordance with IEC 60664-1)

Rated surge voltage: 4kV

#### 6. Output circuit

2 potential free change over contacts
Rated voltage: 250V AC
Switching capacity: 2000VA (8A / 250V)

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. 6/min at 1000VA resistive load (in accordance with IEC 60947-5-1)

Overvoltage category: III (in accordance with IEC 6064-1)

Rated surge voltage: 4kV

#### 7. Accuracy

Base accuracy: ±1% of minimum scale value
Adjustment accuracy: <5% of minimum scale value
Repetition accuracy: <0.5% or ±5ms

Voltage influence: Temperature influence: ≤0.01% / °C

#### 8. Ambient conditions

Ambient temperature: -25 to +55°C Storage temperature: -25 to +70°C Transport temperature: -25 to +70°C Relative humidity: 15% to 85%

(in accordance with IEC 60721-3-3 class 3K3)
Pollution degree: 2, if built in 3 (in accordance with IEC 60664-1)

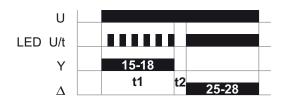
## 9. Weight

Single packing: 106g

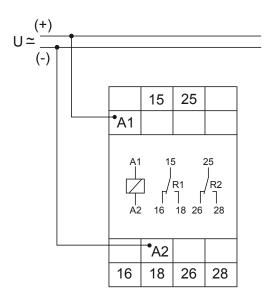
# **Functions**

#### Star-Delta start-up

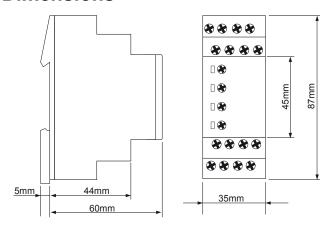
When the supply voltage U is applied, the star-contact switches into on-position (yellow LED illuminated) and the set star-time t1 begins (green LED U/t flashes). After the interval t1 has expired (green LED U/t illuminated) the star-contact switches into off-position (yellow LED not illuminated) and the set transit-time t2 begins. After the interval t2 has expired the contact for the delta-contactor switches into on-position. To restart the function the supply voltage must be interrupted and reapplied.



# **Connections**



# **Dimensions**



# **Ordering Informations**

Types	Functiones	Supply Voltage	Part. No.
E3ZS20 12-240V AC/DC	S (Star-Delta) start up	12-240V AC/DC	111300

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Subject to alterations and errors

