

Electronic Timer Relays

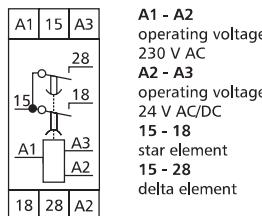
Star-delta Relay



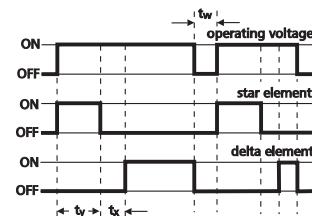
Housing Dimensions



Wiring



Function Diagram



Description

Star-delta relay with selectable delay time to switch three-phase current motors from star connection to delta connection.

Time setting is done by means of a linear potentiometer on relative scales.

On application of power the star element pulls on without delay and drops off after the selected delay time t_w . Then, after the fixed switch time t_x the delta element pulls on and drops off only after power is removed.

Technical Data

| | | |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Input | nominal voltage U_N power consumption | 230 V AC, 24 V AC/DC |
| | at 230 AC | 6.0 VA |
| | at 24 AC | 1.0 VA |
| | at 24 DC | 0.5 W |
| operating voltage range | 0.9 ... 1.1 x U_N | |
| release voltage | $\geq 0.15 U_N$ | |
| frequency range | 50 ... 60 Hz | |
| duty cycle | 100 % | |
| response time t_a | about 20 ms | |
| release time (star element) | about 25 ms | |
| release time (delta element) | about 25 ms | |
| switching time t_x | about 50 ms | |
| recovery time t_w | ≥ 250 ms | |
| minimum turn-on time | - | |
| repeat accuracy | $\leq \pm 0.5$ % | |
| voltage sensitivity | ≤ 0.5 % at 0.8 ... 1.1 U_N | |
| temperature sensitivity | $\leq \pm 0.1$ %/K | |
| operating temperature range | -10 °C ... +50 °C | |
| storage temperature range | -25 °C ... +70 °C | |
| Output | output contact contact material | 1 changeover contact AgNi |
| | switching voltage max. | 250 V |
| | continuous current max. | 6 A |
| | making/breaking capacity | 230 V~ 6 A AC1, 230 V~ 3 A AC3, 230 V- 0.12 A, 60 V- 0.6 A, 24 V- 4 A 12 V- 6 A DC1 |
| contact fuses | 6 A | |
| mechanical endurance | 3×10^7 switching cycles | |
| electrical endurance | 1×10^5 switching cycles | |
| permissible switching frequency | 1200 switching cycles/h | |
| isolation per VDE 0110 | | |
| rated voltage | 250 V AC/DC | |
| overvoltage category | II | |
| pollution degree | 2 | |
| test voltage coil/contact | 2000 V, 50 Hz 1 min. | |
| EMC test | emission per EN 50 081 T1 interference immunity per EN 50 082 T2 | |
| Housing | type of protection (EN 60529) wire cross section mounting position colour weight housing dimensions WxHxL modular | housing IP50, terminal blocks IP20 2.5 mm ² any green 150 g 22.5 x 70 x 95 mm without spacing |

RSDw-E10

230 V AC / 24 V AC/DC -
1 changeover contact (two relays)

- preset switching time 50 ms
- LED indication

Part Numbers

| | |
|---------------------|-----------------------------------------------|
| 110 161 41 28 04 17 | time range 1.5 - 30 s switching time 50 ms |
| 110 161 41 28 05 17 | time range 3 - 60 s switching time 50 ms |