

# Product datasheet

Specifications



## Star-Delta Timing Relay - 0.05s... 300s - 24V DC / 24...240V AC - 1C/ O

RE22R1QCMU

### Main

|                           |                      |
|---------------------------|----------------------|
| Range of product          | Harmony Timer Relays |
| Discrete output type      | Relay                |
| Product or component type | Modular timing relay |
| Device short name         | RE22                 |
| nominal output current    | 8 A                  |

### Complementary

|                                |  |
|--------------------------------|--|
| Contacts type and composition  | 1 C/O timed contact, cadmium free  |
| Time delay type                | Star-delta   |
| Time delay range               | 10...100 s<br>3...30 s<br>0.1...1 s<br>0.3...3 s<br>0.05...0.5 s<br>1...10 s<br>30...300 s   |
| Control type                   | Rotary knob<br>Diagnostic button   |
| [Us] rated supply voltage      | 24 V DC<br>24...240 V AC 50/60 Hz  |
| Release input voltage          | $\leq 2.4$ V   |
| Voltage range                  | 0.85...1.1 Us  |
| Supply frequency               | 50...60 Hz +/- 5 %   |
| Connections - terminals        | Screw terminals, 1 x 0.5...1 x 3.3 mm <sup>2</sup> (AWG 20...AWG 12) solid without cable end<br>Screw terminals, 2 x 0.5...2 x 2.5 mm <sup>2</sup> (AWG 20...AWG 14) solid without cable end<br>Screw terminals, 1 x 0.2...1 x 2.5 mm <sup>2</sup> (AWG 24...AWG 14) flexible with cable end<br>Screw terminals, 2 x 0.2...2 x 1.5 mm <sup>2</sup> (AWG 24...AWG 16) flexible with cable end |
| Tightening torque              | 0.6...1 N.m conforming to IEC 60947-1  |
| Housing material               | Self-extinguishing   |
| Repeat accuracy                | +/- 0.5 % conforming to IEC 61812-1  |
| Temperature drift              | +/- 0.05 %/°C  |
| Voltage drift                  | +/- 0.2 %/V  |
| Setting accuracy of time delay | +/- 10 % of full scale at 25 °C conforming to IEC 61812-1  |
| Time delay type                | Star-delta - Qc-Star-delta relay (1 CO output)   |
| Insulation resistance          | 100 MOhm at 500 V DC conforming to IEC 60664-1   |
| Recovery time                  | 120 ms on de-energisation  |
| Immunity to microbreaks        | 10 ms  |

Excluding VAT, FCA Jabal Ali & are subject to change – check with your local distributor.

|  |   |
|--|---|
| <b>Power consumption in VA</b>         | 35 VA at 240 V AC   |
| <b>Power consumption in W</b>          | 0.6 W at 24 V DC  |
| <b>Switching capacity in VA</b>        | 2000 VA   |
| <b>Minimum switching current</b>       | 10 mA at 5 V DC   |
| <b>Maximum switching current</b>       | 8 A   |
| <b>Maximum switching voltage</b>       | 250 V AC  |
| <b>Electrical durability</b>           | 100000 cycles, 8 A at 250 V, AC-1<br>100000 cycles, 2 A at 24 V, DC-1   |
| <b>Mechanical durability</b>           | 10000000 cycles   |
| <b>Rated impulse withstand voltage</b> | 5 kV for 1.2...50 µs conforming to IEC 60664-1  |
| <b>Power on delay</b>                  | 100 ms  |
| <b>Creepage distance</b>               | 4 kV/3 conforming to IEC 60664-1  |
| <b>Overvoltage category</b>            | III conforming to IEC 60664-1   |
| <b>Safety reliability data</b>         | MTTFd = 285.3 years<br>B10d = 270000  |
| <b>Mounting position</b>               | Any position  |
| <b>Mounting support</b>                | 35 mm DIN rail conforming to IEC 60715  |
| <b>Status LED</b>                      | LED backlight green (steady) for dial pointer indication<br>LED yellow (steady) for output relay energised<br>LED yellow (fast flashing) for timing in progress and output relay de-energised<br>LED yellow (slow flashing) for timing in progress and output relay energised |
| <b>Function available</b>              | Qc-Star-delta relay (1 CO output)-1 C/O   |
| <b>Width</b>                           | 22.5 mm   |
| <b>Net weight</b>                      | 0.08 kg   |
| <b>Control type</b>                    | With test button  |
| <b>Number of functions</b>             | 1   |

## Environment

|  |  |
|--|--|
| <b>Dielectric strength</b>                   | 2.5 kV for 1 mA/1 minute at 50 Hz between relay output and power supply with basic insulation conforming to IEC 61812-1      |
| <b>Standards</b>                             | UL 508<br>IEC 61812-1  |
| <b>Directives</b>                            | 2004/108/EC - electromagnetic compatibility<br>2006/95/EC - low voltage directive  |
| <b>Product certifications</b>                | GL<br>CE<br>CCC<br>EAC<br>UL<br>CSA<br>RCM   |
| <b>Ambient air temperature for operation</b> | -20...60 °C  |
| <b>Ambient air temperature for storage</b>   | -40...70 °C  |
| <b>IP degree of protection</b>               | IP40 housing: conforming to IEC 60529<br>IP50 front face: conforming to IEC 60529<br>IP20 terminals: conforming to IEC 60529 |
| <b>Pollution degree</b>                      | 3 conforming to IEC 60664-1  |
| <b>Vibration resistance</b>                  | 20 m/s <sup>2</sup> (f= 10...150 Hz) conforming to IEC 60068-2-6   |

|                                      |  |
|--------------------------------------|--|
| <b>Shock resistance</b>              | 15 gn not operating for 11 ms conforming to IEC 60068-2-27<br>5 gn in operation for 11 ms conforming to IEC 60068-2-27   |
| <b>Relative humidity</b>             | 95 % at 25...55 °C   |
| <b>Electromagnetic compatibility</b> | Fast transients immunity test - test level: 1 kV level 3 (capacitive connecting clip) conforming to IEC 61000-4-4<br>Surge immunity test - test level: 1 kV level 3 (differential mode) conforming to IEC 61000-4-5<br>Surge immunity test - test level: 2 kV level 3 (common mode) conforming to IEC 61000-4-5<br>Electrostatic discharge - test level: 6 kV level 3 (contact discharge) conforming to IEC 61000-4-2<br>Electrostatic discharge - test level: 8 kV level 3 (air discharge) conforming to IEC 61000-4-2<br>Radiated radio-frequency electromagnetic field immunity test - test level: 10 V/m level 3 (80 MHz...1 GHz) conforming to IEC 61000-4-3<br>Conducted RF disturbances - test level: 10 V level 3 (0.15...80 MHz) conforming to IEC 61000-4-6<br>Fast transient bursts - test level: 2 kV level 3 (direct contact) conforming to IEC 61000-4-4<br>Immunity to microbreaks and voltage drops - test level: 30 % (500 ms) conforming to IEC 61000-4-11<br>Immunity to microbreaks and voltage drops - test level: 100 % (20 ms) conforming to IEC 61000-4-11 |

## Packing Units

|                                     |          |
|-------------------------------------|----------|
| <b>Unit Type of Package 1</b>       | PCE      |
| <b>Number of Units in Package 1</b> | 1        |
| <b>Package 1 Height</b>             | 2.5 cm   |
| <b>Package 1 Width</b>              | 8.4 cm   |
| <b>Package 1 Length</b>             | 9.5 cm   |
| <b>Package 1 Weight</b>             | 90.0 g   |
| <b>Unit Type of Package 2</b>       | S02      |
| <b>Number of Units in Package 2</b> | 40       |
| <b>Package 2 Height</b>             | 15.0 cm  |
| <b>Package 2 Width</b>              | 30.0 cm  |
| <b>Package 2 Length</b>             | 40.0 cm  |
| <b>Package 2 Weight</b>             | 4.14 kg  |
| <b>Unit Type of Package 3</b>       | P06      |
| <b>Number of Units in Package 3</b> | 640      |
| <b>Package 3 Height</b>             | 80.0 cm  |
| <b>Package 3 Width</b>              | 80.0 cm  |
| <b>Package 3 Length</b>             | 60.0 cm  |
| <b>Package 3 Weight</b>             | 73.38 kg |

## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing "Use Better, Use Longer, Use Again" campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

### Environmental footprint

|   |    |
|---|----|
| Carbon footprint (kg.eq.CO2 per CR, Total Life cycle) | 43 |
|---|----|

## Use Better

### Materials and Substances

|  |     |
|--|-----|
| Packaging made with recycled cardboard | Yes |
|--|-----|

|                                      |     |
|--------------------------------------|-----|
| Packaging without single use plastic | Yes |
|--------------------------------------|-----|

|                                   |  |
|-----------------------------------|--|
| <a href="#">EU RoHS Directive</a> | Pro-active compliance (Product out of EU RoHS legal scope) |
|-----------------------------------|--|

|             |                                      |
|-------------|--------------------------------------|
| SCIP Number | 7bdc2711-0ad2-427c-8ece-532c5e9f09d7 |
|-------------|--------------------------------------|

|                  |                                   |
|------------------|-----------------------------------|
| REACH Regulation | <a href="#">REACH Declaration</a> |
|------------------|-----------------------------------|

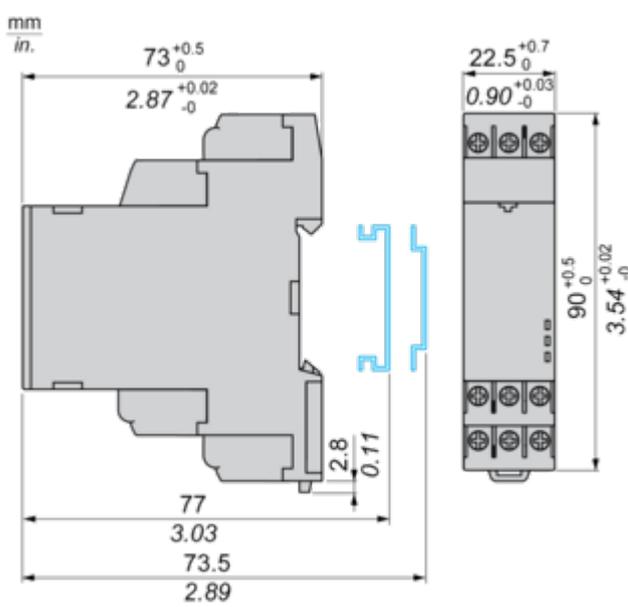
## Use Again

### Repack and remanufacture

|           |    |
|-----------|----|
| Take-back | No |
|-----------|----|

Dimensions Drawings

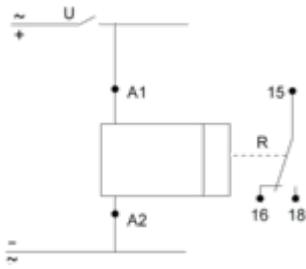
Dimensions



Connections and Schema

Wiring Diagram

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Technical Description

**Function Qc: Star-Delta Relay (1 CO)**

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**Description**

On energisation of power supply, the output R initializes at its initial state such that energizes STAR CONTACTOR + MAIN CONTACTOR and the timing T starts (STAR connection time duration starts).At the end of the timing period T, the output R closes such that deenergizes STAR CONTACTOR and deenergizes the power supply causes t transition time starts.At the end of the transition time, the output R reverts to its initial state such that energizes DELTA CONTACTOR.

**Function: 1 Output**



t : 50 ms

**Legend**

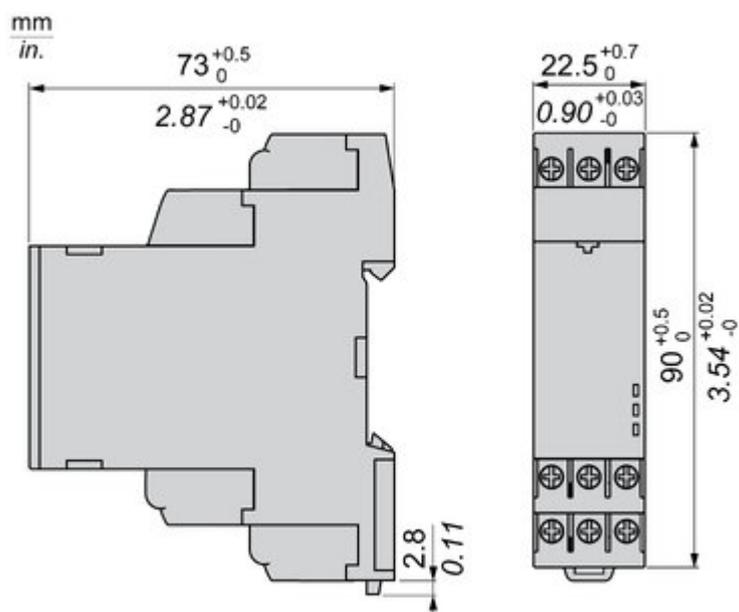
- Relay de-energised
- Relay energised
- Output open
- Output closed

|      |   |
|------|---|
| U -  | Supply                                  |
| T -  | Timing period                           |
| t -  | Delay to switch ON Delta contact output |
| R1 - | Star-Delta contact output               |

Technical Illustration

Dimensions

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Offer Marketing Illustration

Product benefits / Features

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## Technical Benefits

### Harmony Timer Relay

choice of screw  
ing connection  
als for wiring.

duct reference  
ing 28 timing  
ns, 2 outputs.  
wide range of  
ply voltage  
10 V AC/DC.

id unintended  
intervention  
ed thanks  
: IP50 lead-  
ble settings  
ction cover.



A Dial-Pointe  
indicator that er  
ease of operation  
environments such  
or low-light car

Different mc  
style to mee  
preferen  
DIN rail mou  
product w  
17.5 mm/U,  
22.5 mm/U  
Plug in max  
with soc

Offer Marketing Illustration

Product benefits / Features

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### Features

#### Harmony Timer Relay



 "Diagnostic button" to check downstream circuit immediately, shorten the commission and troubleshooting time

 Compatible with a wide range of applications including machines, buildings, water segments, and HVAC.

 Wide range of time delay for adjustment: from 0.01 s to 999 hrs.

 Compliant with IEC 60255-1 standard, and a wide array of product certifications such as UL, CE, CSA, EAC.

 Unprecedented accuracy, predictive maintenance, and superior security.

Image of product / Alternate images

Alternative

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