

# Product datasheet

Specifications



## Star-Delta Timing Relay - 0.3s...30s - 24...240V AC/DC - 2C/O

Local distributor code:  
403002184 RE22R2QEMR

EAN Code: 3606480792588

### 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  | 2 C/O timed contact, cadmium free                                                                                                                                                                                                                                                                                                                                                            |
| Time delay type                | Star-delta                                                                                                                                                                                                                                                                                                                                                                                   |
| Time delay range               | 0.3...30 s                                                                                                                                                                                                                                                                                                                                                                                   |
| Control type                   | Rotary knob<br>Diagnostic button                                                                                                                                                                                                                                                                                                                                                             |
| [Us] rated supply voltage      | 24...240 V AC/DC 50/60 Hz                                                                                                                                                                                                                                                                                                                                                                    |
| Release input voltage          | <= 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> (20 AWG...12 AWG) solid without cable end<br>Screw terminals, 2 x 0.5...2 x 2.5 mm <sup>2</sup> (20 AWG...14 AWG) solid without cable end<br>Screw terminals, 1 x 0.2...1 x 2.5 mm <sup>2</sup> (24 AWG...14 AWG) flexible with cable end<br>Screw terminals, 2 x 0.2...2 x 1.5 mm <sup>2</sup> (24 AWG...16 AWG) flexible with cable end |
| Tightening torque              | 0.6...1 N.m conforming to IEC 60947-1                                                                                                                                                                                                                                                                                                                                                        |
| Housing material               | Polycarbonate                                                                                                                                                                                                                                                                                                                                                                                |
| 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 - Qe-Star-delta relay (1 NC + 1 NO outputs with split common)                                                                                                                                                                                                                                                                                                                     |
| 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                                                                                                                                                                                                                                                                                                                                                                                        |
| Power consumption in VA        | 3 VA at 240 V AC                                                                                                                                                                                                                                                                                                                                                                             |
| Power consumption in W         | 1.5 W at 240 V DC                                                                                                                                                                                                                                                                                                                                                                            |
| Switching capacity in VA       | 2000 VA                                                                                                                                                                                                                                                                                                                                                                                      |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

|                                 |                                                                                                                                                                                                                                                                               |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Minimum switching current       | 10 mA at 5 V DC                                                                                                                                                                                                                                                               |
| Maximum switching current       | 8 A                                                                                                                                                                                                                                                                           |
| Maximum switching voltage       | 250 V AC                                                                                                                                                                                                                                                                      |
| Electrical durability           | 100000 cycles, 8 A at 250 V, AC-1<br>100000 cycles, 2 A at 24 V, DC-1                                                                                                                                                                                                         |
| Mechanical durability           | 10000000 cycles                                                                                                                                                                                                                                                               |
| Rated impulse withstand voltage | 5 kV for 1.2...50 µs conforming to IEC 60664-1                                                                                                                                                                                                                                |
| Power on delay                  | 100 ms                                                                                                                                                                                                                                                                        |
| Creepage distance               | 4 kV/3 conforming to IEC 60664-1                                                                                                                                                                                                                                              |
| Overvoltage category            | III conforming to IEC 60664-1                                                                                                                                                                                                                                                 |
| Safety reliability data         | B10d = 320000<br>MTTFd = 353.8 years                                                                                                                                                                                                                                          |
| Mounting position               | Any position                                                                                                                                                                                                                                                                  |
| Mounting support                | 35 mm DIN rail conforming to IEC 60715                                                                                                                                                                                                                                        |
| Status LED                      | 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 |
| Function available              | Qe-Star-delta relay (1 NC + 1 NO outputs with split common)-2 C/O                                                                                                                                                                                                             |
| Width                           | 22.5 mm                                                                                                                                                                                                                                                                       |
| Product weight                  | 0.09 kg                                                                                                                                                                                                                                                                       |
| Control type                    | With test button                                                                                                                                                                                                                                                              |
| Number of functions             | 1                                                                                                                                                                                                                                                                             |

## Environment

|                                       |                                                                                                                               |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Dielectric strength                   | 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       |
| Standards                             | IEC 61812-1<br>UL 508                                                                                                         |
| Directives                            | 2006/95/EC - low voltage directive<br>2004/108/EC - electromagnetic compatibility                                             |
| Product certifications                | CE<br>CSA<br>GL<br>EAC<br>UL<br>RCM<br>CCC                                                                                    |
| Ambient air temperature for operation | -20...60 °C                                                                                                                   |
| Ambient air temperature for storage   | -40...70 °C                                                                                                                   |
| IP degree of protection               | IP40 housing: conforming to IEC 60529<br>IP20 terminals: conforming to IEC 60529<br>IP50 front panel: conforming to IEC 60529 |
| Pollution degree                      | 3 conforming to IEC 60664-1                                                                                                   |
| Vibration resistance                  | 20 m/s² (f= 10...150 Hz) conforming to IEC 60068-2-6                                                                          |
| Shock resistance                      | 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        |
| Relative humidity                     | 95 % at 25...55 °C                                                                                                            |

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Electromagnetic compatibility | 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

|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Height             | 2.5 cm   |
| Package 1 Width              | 8.3 cm   |
| Package 1 Length             | 9.6 cm   |
| Package 1 Weight             | 100.0 g  |
| Unit Type of Package 2       | S02      |
| Number of Units in Package 2 | 40       |
| Package 2 Height             | 15.0 cm  |
| Package 2 Width              | 30.0 cm  |
| Package 2 Length             | 40.0 cm  |
| Package 2 Weight             | 4.388 kg |
| Unit Type of Package 3       | P06      |
| Number of Units in Package 3 | 640      |
| Package 3 Height             | 80.0 cm  |
| Package 3 Width              | 80.0 cm  |
| Package 3 Length             | 60.0 cm  |
| Package 3 Weight             | 73.38 kg |

## Logistical informations

|                   |    |
|-------------------|----|
| Country of origin | ID |
|-------------------|----|

## Contractual warranty

|                      |    |
|----------------------|----|
| Warranty (in months) | 18 |
|----------------------|----|



## 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

|                                                        |                                               |
|--------------------------------------------------------|-----------------------------------------------|
| Total lifecycle Carbon footprint                       | 43 kg CO2 eq.                                 |
| Carbon footprint of the manufacturing phase [A1 to A3] | 2 kg CO2 eq.                                  |
| Carbon footprint of the distribution phase [A4]        | 0 kg CO2 eq.                                  |
| Carbon footprint of the installation phase [A5]        | 0 kg CO2 eq.                                  |
| Carbon footprint of the use phase [B2, B3, B4, B6]     | 41 kg CO2 eq.                                 |
| Carbon footprint of the end-of-life phase [C1 to C4]   | 0.1 kg CO2 eq.                                |
| Environmental Disclosure                               | <a href="#">Product Environmental Profile</a> |

## Use Better



### Materials and Substances

|                                        |                                                                                        |
|----------------------------------------|----------------------------------------------------------------------------------------|
| Packaging made with recycled cardboard | Yes                                                                                    |
| Packaging without single use plastic   | Yes                                                                                    |
| SCIP Number                            | 7bdc2711-0ad2-427c-8ece-532c5e9f09d7                                                   |
| EU RoHS Directive                      | <a href="#">Compliant By Exemption</a>                                                 |
| REACH Regulation                       | <a href="#">Reference contains Substances of Very High Concern above the threshold</a> |

## Use Longer



### Lifetime extension

|        |    |
|--------|----|
| Repair | No |
|--------|----|

## Use Again

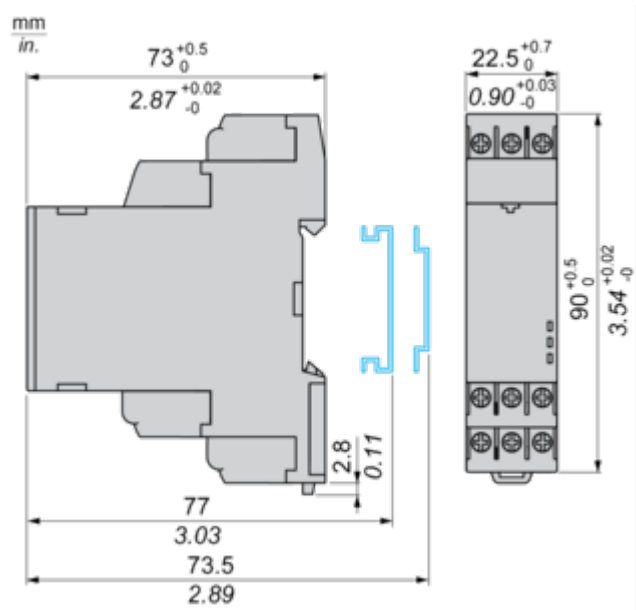


### Repack and remanufacture

|                                 |                                         |
|---------------------------------|-----------------------------------------|
| Recyclability potential, in %   | 15                                      |
| End of life manual availability | <a href="#">End of Life Information</a> |
| Take-back                       | No                                      |

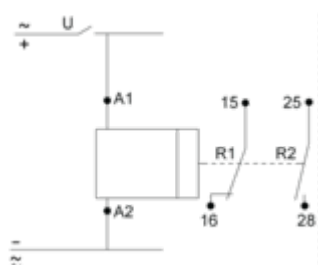
Dimensions Drawings

Dimensions



Connections and Schema

Wiring Diagram



Technical Description

Function Qe: Star-Delta Relay (1 NC + 1 NO with Split Common)

Description

On energisation of power supply, the output R1 is 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 R1 closes such that deenergizes STAR CONTACTOR and causes t transition time starts.At the end of the transition time, the output R2 closes such that energizes DELTA CONTACTOR.

Function: 2 Outputs



t : 20, 40, 60, 80, 100, 120, 140 ms

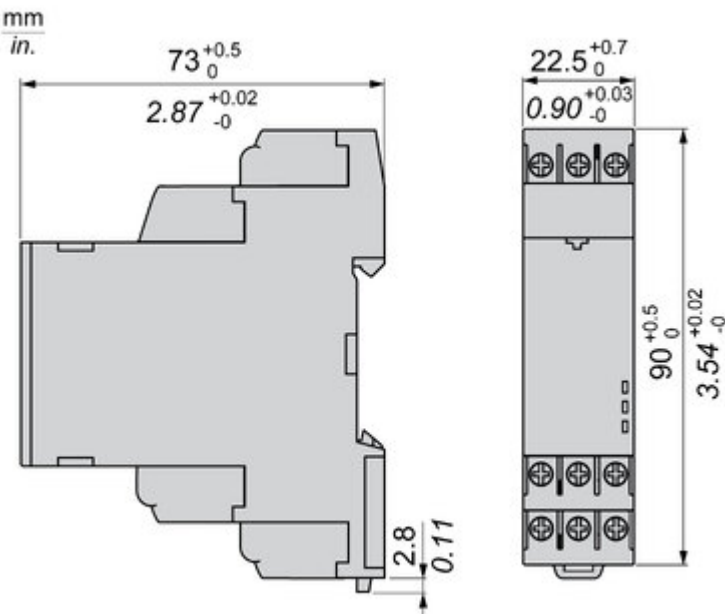
Legend

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

|      |                                         |
|------|-----------------------------------------|
| U -  | Supply                                  |
| T -  | Timing period                           |
| t -  | Delay to switch ON Delta contact output |
| R1 - | Star contact output                     |
| R2 - | Delta contact output                    |

Technical Illustration

Dimensions





Offer Marketing Illustration

Product benefits / Features

Technical Benefits

Harmony Timer Relay

Flexible choice of screw or spring connection terminals for wiring.

One product reference covering 28 timing functions, 2 outputs, and a wide range of supply voltage 24...240 V AC/DC.

Dust and unintended human intervention avoided thanks to the IP50 lead-sealable settings protection cover.

A Dial-Pointer LED indicator that enhances ease of operation in difficult environments such as dusty or low-light conditions

Different mounting style to meet your preference:  
DIN rail mount with product width: 17.5 mm/0.69 in.  
22.5 mm/0.88 in.  
Plug in mounting with socket

Offer Marketing Illustration

Product benefits / Features

### 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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