# **Product datasheet**

Specification





# 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

Complementary	
Contacts type and composition	1 C/O timed contact, cadmium free
time delay type	Star-delta
time delay range	10100 s
	330 s
	0.11 s
	0.33 s
	0.050.5 s
	110 s
	30300 s
Control type	Rotary knob
	Diagnostic button
[Us] rated supply voltage	24 V DC
	24240 V AC 50/60 Hz
Release input voltage	<= 2.4 V
Voltage range	0.851.1 Us
Supply frequency	5060 Hz +/- 5 %
Connections - terminals	Screw terminals, 1 x 0.51 x 3.3 mm² (AWG 20AWG 12) solid without cable end Screw terminals, 2 x 0.52 x 2.5 mm² (AWG 20AWG 14) solid without cable end Screw terminals, 1 x 0.21 x 2.5 mm² (AWG 24AWG 14) flexible with cable end Screw terminals, 2 x 0.22 x 1.5 mm² (AWG 24AWG 16) flexible with cable end
Tightening torque	0.61 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
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	35 VA at 240 V AC

Power consumption in W	0.6 W at 24 V DC	
Switching capacity in VA	2000 VA	
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 100000 cycles, 2 A at 24 V, DC-1	
Mechanical durability	10000000 cycles	
Rated impulse withstand voltage	5 kV for 1.250 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	MTTFd = 285.3 years B10d = 270000	
Mounting position	Any position	
Mounting support	35 mm DIN rail conforming to IEC 60715	
Status LED	LED backlight green (steady) for dial pointer indication LED yellow (steady) for output relay energised LED yellow (fast flashing) for timing in progress and output relay de-energised LED yellow (slow flashing) for timing in progress and output relay energised	
Function available	Qc-Star-delta relay (1 CO output)-1 C/O	
Width	22.5 mm	
Net weight	0.08 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	UL 508 IEC 61812-1
Directives	2004/108/EC - electromagnetic compatibility 2006/95/EC - low voltage directive
Product certifications	GL CE CCC EAC UL CSA RCM
Ambient air temperature for operation	-2060 °C
Ambient air temperature for storage	-4070 °C
IP degree of protection	IP40 housing: conforming to IEC 60529 IP50 front face: conforming to IEC 60529 IP20 terminals: conforming to IEC 60529
Pollution degree	3 conforming to IEC 60664-1
Vibration resistance	20 m/s² (f= 10150 Hz) conforming to IEC 60068-2-6
Shock resistance	15 gn not operating for 11 ms conforming to IEC 60068-2-27 5 gn in operation for 11 ms conforming to IEC 60068-2-27

Relative humidity	95 % at 2555 °C
Electromagnetic compatibility	Fast transients immunity test - test level: 1 kV level 3 (capacitive connecting clip) conforming to IEC 61000-4-4 Surge immunity test - test level: 1 kV level 3 (differential mode) conforming to IEC 61000-4-5 Surge immunity test - test level: 2 kV level 3 (common mode) conforming to IEC 61000-4-5 Electrostatic discharge - test level: 6 kV level 3 (contact discharge) conforming to IEC 61000-4-2 Electrostatic discharge - test level: 8 kV level 3 (air discharge) conforming to IEC 61000-4-2 Radiated radio-frequency electromagnetic field immunity test - test level: 10 V/m level 3 (80 MHz1 GHz) conforming to IEC 61000-4-3 Conducted RF disturbances - test level: 10 V level 3 (0.1580 MHz) conforming to IEC 61000-4-6 Fast transient bursts - test level: 2 kV level 3 (direct contact) conforming to IEC 61000-4-4 Immunity to microbreaks and voltage drops - test level: 30 % (500 ms) conforming to IEC 61000-4-11 Immunity to microbreaks and voltage drops - test level: 100 % (20 ms) conforming to
	IEC 61000-4-6 Fast transient bursts - test level: 2 kV level 3 (direct contact) conforming to IEC 61000-4-4 Immunity to microbreaks and voltage drops - test level: 30 % (500 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	8.4 cm
Package 1 Length	9.5 cm
Package 1 Weight	90.0 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	4.14 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

# **Contractual warranty**

Warranty 18 months

# Sustainability Screen Premium\*

**Green Premium**<sup>TM</sup> **label** is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

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Guide to assess a product's sustainability >





Transparency RoHS/REACh

## Well-being performance



Mercury Free



Rohs Exemption Information

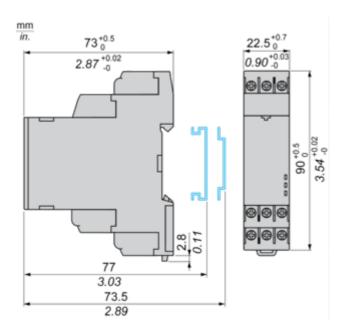
Yes

## **Certifications & Standards**

Reach Regulation	REACh Declaration
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information

### **Dimensions Drawings**

### **Dimensions**

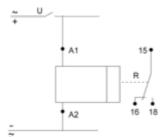


# **Product datasheet**

# RE22R1QCMU

## Connections and Schema

## Wiring Diagram



### RE22R1QCMU

**Technical Description** 

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

### 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