

# Product data sheet

Specifications



## Harmony, Modular 3-phase supply control relay, 8A, 2 CO, 183... 528VAC

RM22TG20

**Product availability: Stock - Normally stocked in distribution facility**

### Main

|                               |   |
|-------------------------------|---|
| Range of Product              | Harmony Control Relays  |
| Relay Type                    | Control relay   |
| Product or Component Type     | 3-phase control relay   |
| Phase                         | 3 phase   |
| Relay name                    | RM22TG  |
| Relay monitored parameters    | Phase sequence<br>Phase failure detection (2 or more phase cut) |
| Time delay type               | Without   |
| Switching capacity in VA      | 2000 VA   |
| Measurement range             | 208...480 V voltage AC  |
| Contacts type and composition | 2 C/O   |

### Complementary

|                             |  |
|-----------------------------|--|
| Reset time                  | 1500 ms at maximum voltage   |
| Maximum switching voltage   | 250 V AC   |
| Minimum switching current   | 10 mA 5 V DC   |
| Maximum switching current   | 8 A AC   |
| [Us] Rated Supply Voltage   | AC/DC  |
| Supply voltage limits       | 183...528 V AC   |
| operating limits            | 183...528 V AC   |
| Power consumption in VA     | 15 VA 480 V AC 60 Hz   |
| Voltage detection threshold | < 100 V AC   |
| supply voltage frequency    | 50...60 Hz +/- 10 %  |
| Output contacts             | 2 C/O  |
| nominal output current      | 8 A  |
| Power on Delay              | 650 ms   |
| Response time               | <= 200 ms  |
| Overvoltage category        | III conforming to IEC 60664-1<br>III conforming to UL 508  |
| Insulation resistance       | > 100 MOhm 500 V DC IEC 60255-27   |
| Connections - terminals     | 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, 2 x 0.2...2 x 1.5 mm <sup>2</sup> 24 AWG...16 AWG) flexible with cable end<br>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, 1 x 0.2...1 x 2.5 mm <sup>2</sup> 24 AWG...14 AWG) flexible with cable end |

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

|                                   |  |
|-----------------------------------|--|
| <b>Tightening torque</b>          | 5.3...8.9 lbf.in (0.6...1 N.m) IEC 60947-1   |
| <b>Housing material</b>           | Polycarbonate  |
| <b>Status LED</b>                 | LED (Yellow) relay ON<br>LED (Green) power ON  |
| <b>Mounting support</b>           | 35 mm DIN rail conforming to IEC 60715   |
| <b>Electrical durability</b>      | 100000 cycles  |
| <b>Mechanical durability</b>      | 10000000 cycles  |
| <b>Utilisation category</b>       | AC-15 IEC 60947-5-1<br>DC-13 IEC 60947-5-1<br>AC-1 IEC 60947-4-1<br>DC-1 IEC 60947-4-1 |
| <b>[Un] rated nominal voltage</b> | , self-powered   |
| <b>Safety reliability data</b>    | MTTFd = 924.6 years<br>B10d = 850000   |
| <b>Contacts material</b>          | Cadmium free   |
| <b>Control Type</b>               | With test button   |
| <b>Width</b>                      | 0.9 in (22.5 mm)   |
| <b>Height</b>                     | 3.5 in (90 mm)   |
| <b>Depth</b>                      | 2.9 in (73 mm)   |
| <b>Product Weight</b>             | 0.209 lb(US) (0.095 kg)  |

## Environment

|  |  |
|--|--|
| <b>Immunity to microbreaks</b>               | 10 ms  |
| <b>Electromagnetic compatibility</b>         | Immunity for residential, commercial and light-industrial environments conforming to IEC 61000-6-1<br>Immunity for industrial environments conforming to IEC 61000-6-2<br>Emission standard for residential, commercial and light-industrial environments conforming to IEC 61000-6-3<br>Emission standard for industrial environments conforming to IEC 61000-6-4<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 conforming to IEC 61000-4-3<br>Electrical fast transient/burst immunity test - test level: 4 kV level 4 (direct) conforming to IEC 61000-4-4<br>Electrical fast transient/burst immunity test - test level: 2 kV level 4 (capacitive coupling) conforming to IEC 61000-4-4<br>Conducted and radiated emissions class B group 1 conforming to CISPR 11<br>Conducted and radiated emissions class B conforming to CISPR 22 |
| <b>Standards</b>                             | IEC 60255-1  |
| <b>Product Certifications</b>                | CE<br>EAC<br>RCM<br>GL<br>CSA<br>UL<br>CCC   |
| <b>Ambient Air Temperature for Storage</b>   | -40...158 °F (-40...70 °C)   |
| <b>Ambient air temperature for operation</b> | -4...122 °F (-20...50 °C) 60 Hz<br>-4...140 °F (-20...60 °C) 50 Hz AC/DC   |
| <b>Relative humidity</b>                     | 93...97 % 77...131 °F (25...55 °C) IEC 60068-2-30  |

|                                |  |
|--------------------------------|--|
| <b>Vibration resistance</b>    | 0.075 mm 10...58.1 Hz) not in operation IEC 60068-2-6<br>1 gn 10...58.1 Hz) not in operation IEC 60068-2-6<br>0.035 mm 58.1...150 Hz) in operation IEC 60068-2-6<br>0.5 gn 58.1...150 Hz) in operation IEC 60068-2-6 |
| <b>Shock resistance</b>        | 15 gn 11 ms) not in operation IEC 60068-2-27<br>5 gn 11 ms) in operation IEC 60068-2-27  |
| <b>IP degree of protection</b> | IP20 IEC 60529 terminals)<br>IP40 IEC 60529 housing)<br>IP50 IEC 60529 front panel)  |
| <b>Pollution degree</b>        | 3 IEC 60664-1<br>3 UL 508  |
| <b>Dielectric test voltage</b> | 2.5 kV AC 50 Hz, 1 min IEC 60255-27  |

## Ordering and shipping details

|                          |               |
|--------------------------|---------------|
| <b>Category</b>          | US10CP222380  |
| <b>Discount Schedule</b> | 0CP2          |
| <b>GTIN</b>              | 3606480792137 |
| <b>Returnability</b>     | Yes           |
| <b>Country of origin</b> | ID            |

## Packing Units

|                                     |                            |
|-------------------------------------|----------------------------|
| <b>Unit Type of Package 1</b>       | PCE                        |
| <b>Nbr. of units in pkg.</b>        | 1                          |
| <b>Package 1 Height</b>             | 0.984 in (2.500 cm)        |
| <b>Package 1 Width</b>              | 3.228 in (8.200 cm)        |
| <b>Package 1 Length</b>             | 3.740 in (9.500 cm)        |
| <b>Package weight(Lbs)</b>          | 3.668 oz (104.000 g)       |
| <b>Unit Type of Package 2</b>       | S02                        |
| <b>Number of Units in Package 2</b> | 40                         |
| <b>Package 2 Height</b>             | 5.906 in (15.000 cm)       |
| <b>Package 2 Width</b>              | 11.811 in (30.000 cm)      |
| <b>Package 2 Length</b>             | 15.748 in (40.000 cm)      |
| <b>Package 2 Weight</b>             | 10.177 lb(US) (4.616 kg)   |
| <b>Unit Type of Package 3</b>       | P06                        |
| <b>Number of Units in Package 3</b> | 640                        |
| <b>Package 3 Height</b>             | 29.528 in (75.000 cm)      |
| <b>Package 3 Width</b>              | 23.622 in (60.000 cm)      |
| <b>Package 3 Length</b>             | 31.496 in (80.000 cm)      |
| <b>Package 3 Weight</b>             | 189.995 lb(US) (86.180 kg) |

## Contractual warranty

|                             |    |
|-----------------------------|----|
| <b>Warranty (in months)</b> | 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                       | 95 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]     | 93 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                            | 3c095d35-159c-493c-8604-58788d456aa9   |
| EU RoHS Directive                      | <a href="#">Compliant By Exemption</a>   |
| REACH Regulation                       | <a href="#">Reference contains Substances of Very High Concern above the threshold</a>   |
| California proposition 65              | <b>WARNING:</b> This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |

## Use Longer



### Lifetime extension

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

## Use Again



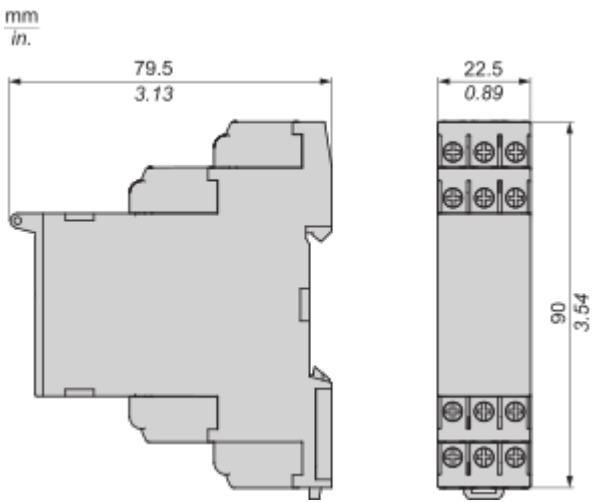
### Repack and remanufacture

|                               |   |
|-------------------------------|---|
| Recyclability potential, in % | 17                                      |
| Circularity Profile           | <a href="#">End of Life Information</a> |
| Take-back                     | No                                      |

Dimensions Drawings

Dimensions

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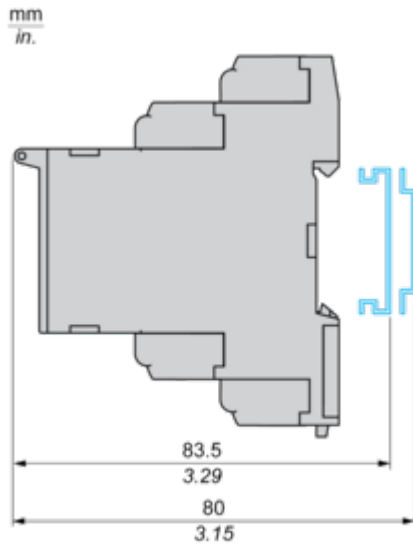


Mounting and Clearance

Mounting and Clearance

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Rail Mounting



Connections and Schema

3-Phase Control Relay

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Wiring Diagram



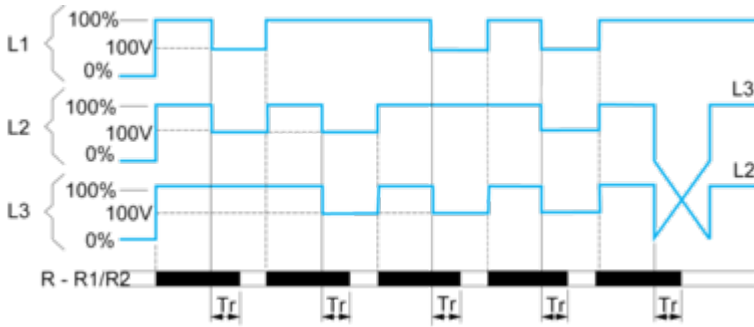
L1,L2,L3 : Supply to be monitored  
11-14,12 : 1st C/O contact of output relay  
21-24,22 : 2nd C/O contact of output relay

Technical Description

Function Diagram

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Phase Sequence Control and Total Loss of Phase Detection



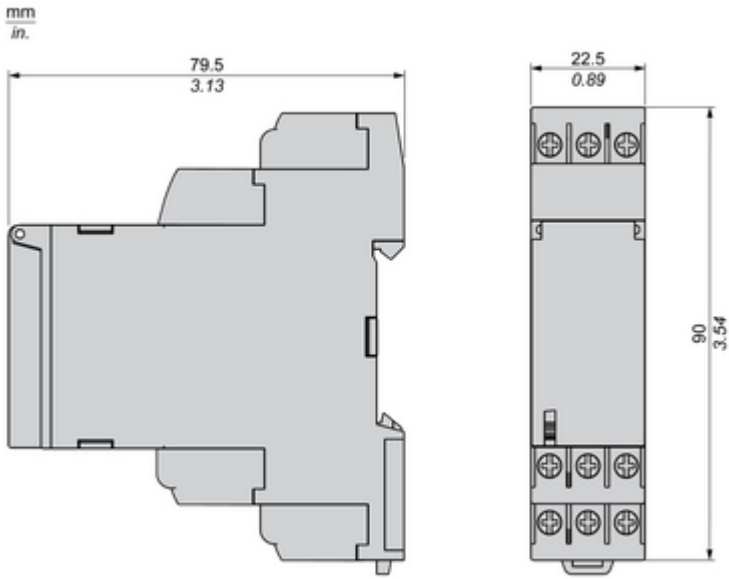
Legend

- Tr Response time on appearance of a fault
- L1, L2, L3 Phases of the supply voltage monitored
- R - R1/R2 Output relay(s).
- Relay status: black color = energized.

Technical Illustration

Dimensions

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Offer Marketing Illustration

Product benefits / Features

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## Technical Benefits

Harmony Control Relay

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

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

Different product width to meet your needs:  
17.5 mm/0.69 in.,  
22.5 mm/0.88 in.,  
35 mm/1.38 in.

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

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



Offer Marketing Illustration

Product benefits / Features

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### Features

#### Harmony Control Relay

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Wide monitoring parameters (phase, current, voltage, liquid level, frequency, speed, temperature, and pump control) to meet your application needs.
- 

True RMS measurement that minimizes the possibility of unexpected trips from highly polluted networks (except RM17TG and RM22TG)
- 

Experience unprecedented accuracy, predictive maintenance, and superior security.
- 

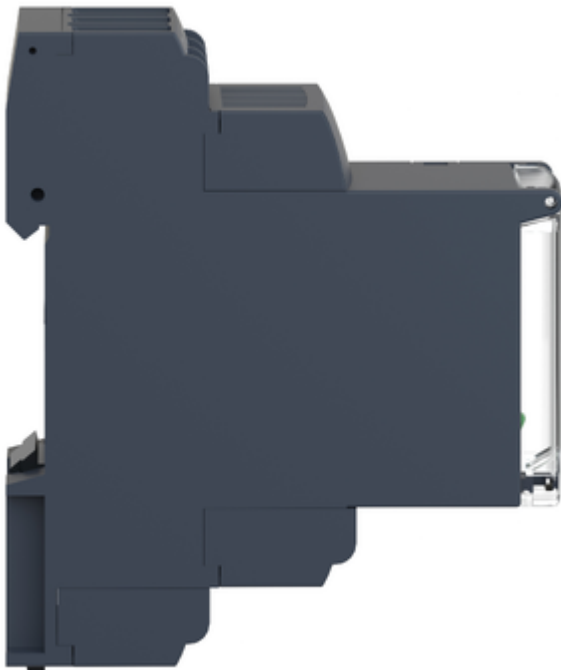
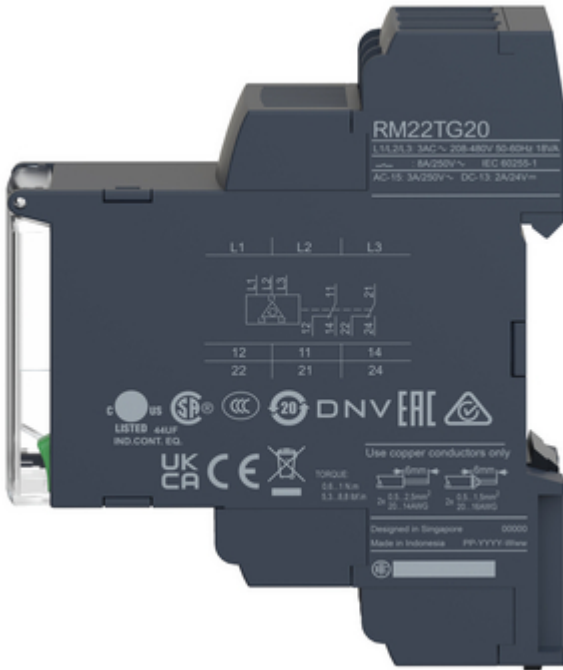
Green Premium labelled products, promising compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> product
- 

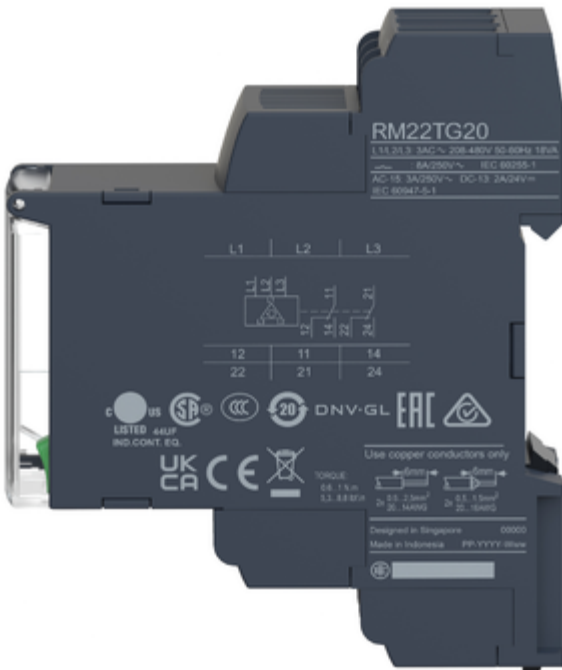
Compatible with a wide range of applications, such as hoisting, packaging, lifts, textile, pumping, and water.

Image of product / Alternate images

Alternative

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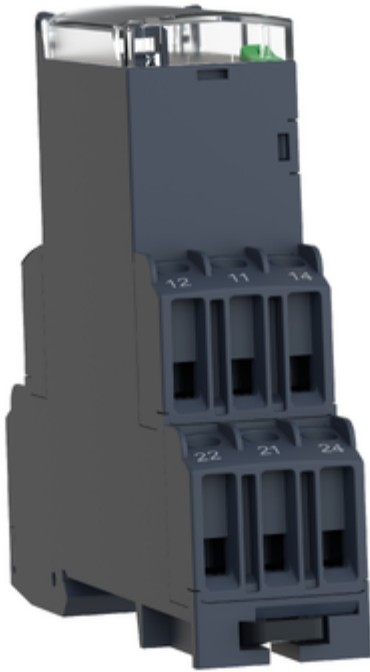




Image of product in real life situation

