

# Product datasheet

Specifications



## three-Phase control relay 183... 528Vac, 2 C/O

RM22TG20

### Main

Range of product	Harmony Control Relays
Relay type	Control relay
Product or component type	3-phase control relay
Network number of phases	3 phases
Relay name	RM22TG
Relay monitored parameters	Phase sequence 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 at 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 at 480 V AC 60 Hz
Voltage detection threshold	< 100 V AC
supply voltage frequency	50...60 Hz +/- 10 %
Output contacts	2 C/O
Run-up delay at power-up	650 ms
Response time	<= 200 ms
Overvoltage category	III conforming to IEC 60664-1 III conforming to UL 508
Insulation resistance	> 100 MOhm at 500 V DC conforming to IEC 60255-27
Mounting position	Any position
Connections - terminals	Screw terminals, 2 x 0.5...2 x 2.5 mm <sup>2</sup> (AWG 20...AWG 14) solid without cable end Screw terminals, 2 x 0.2...2 x 1.5 mm <sup>2</sup> (AWG 24...AWG 16) flexible with cable end Screw terminals, 1 x 0.5...1 x 3.3 mm <sup>2</sup> (AWG 20...AWG 12) solid without cable end Screw terminals, 1 x 0.2...1 x 2.5 mm <sup>2</sup> (AWG 24...AWG 14) flexible with cable end

<b>Tightening torque</b>	0.6...1 N.m conforming to IEC 60947-1
<b>Housing material</b>	Self-extinguishing plastic
<b>Status LED</b>	LED (yellow) relay ON 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 conforming to IEC 60947-5-1 DC-13 conforming to IEC 60947-5-1 AC-1 conforming to IEC 60947-4-1 DC-1 conforming to IEC 60947-4-1
<b>[Un] rated nominal voltage</b>	, self-powered
<b>Safety reliability data</b>	MTTFd = 924.6 years B10d = 850000
<b>Contacts material</b>	Cadmium free
<b>Control type</b>	With test button
<b>Width</b>	22.5 mm
<b>Net weight</b>	0.09 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 Immunity for industrial environments conforming to IEC 61000-6-2 Emission standard for residential, commercial and light-industrial environments conforming to IEC 61000-6-3 Emission standard for industrial environments conforming to IEC 61000-6-4 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 conforming to IEC 61000-4-3 Electrical fast transient/burst immunity test - test level: 4 kV level 4 (direct) conforming to IEC 61000-4-4 Electrical fast transient/burst immunity test - test level: 2 kV level 4 (capacitive coupling) conforming to IEC 61000-4-4 Surge immunity test - test level: 4 kV level 4 (common mode) conforming to IEC 61000-4-5 Surge immunity test - test level: 2 kV level 4 (differential mode) conforming to IEC 61000-4-5 Conducted and radiated emissions class B group 1 conforming to CISPR 11 Conducted and radiated emissions class B conforming to CISPR 22
<b>Standards</b>	IEC 60255-1
<b>Product certifications</b>	CE EAC RCM GL CSA UL CCC
<b>Ambient air temperature for storage</b>	-40...70 °C
<b>Ambient air temperature for operation</b>	-20...50 °C at 60 Hz -20...60 °C at 50 Hz AC/DC
<b>Relative humidity</b>	93...97 % at 25...55 °C conforming to IEC 60068-2-30

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

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	2.500 cm
<b>Package 1 Width</b>	8.200 cm
<b>Package 1 Length</b>	9.500 cm
<b>Package 1 Weight</b>	102.000 g
<b>Unit Type of Package 2</b>	S02
<b>Number of Units in Package 2</b>	40
<b>Package 2 Height</b>	15.000 cm
<b>Package 2 Width</b>	30.000 cm
<b>Package 2 Length</b>	40.000 cm
<b>Package 2 Weight</b>	4.650 kg
<b>Unit Type of Package 3</b>	P06
<b>Number of Units in Package 3</b>	640
<b>Package 3 Height</b>	75.000 cm
<b>Package 3 Width</b>	60.000 cm
<b>Package 3 Length</b>	80.000 cm
<b>Package 3 Weight</b>	86.180 kg

## Contractual warranty

<b>Warranty</b>	18 months
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## Sustainability

**Green Premium™ label** is Schneider Electric's commitment to delivering products with best-in-class 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.

[Learn more about Green Premium >](#)

[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](#)

Weee The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Circularity Profile [End of Life Information](#)

Dimensions Drawings

Dimensions

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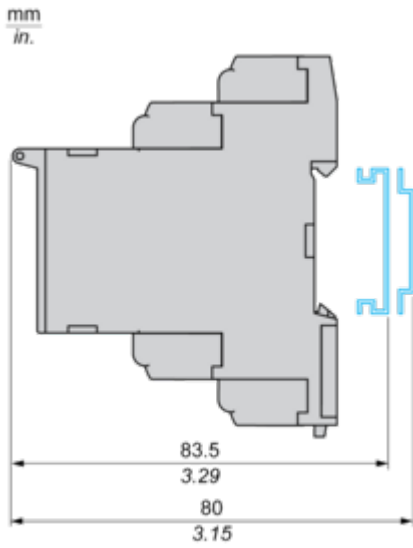


Mounting and Clearance

Mounting and Clearance

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Rail Mounting



## Connections and Schema

### 3-Phase Control Relay

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Wiring Diagram



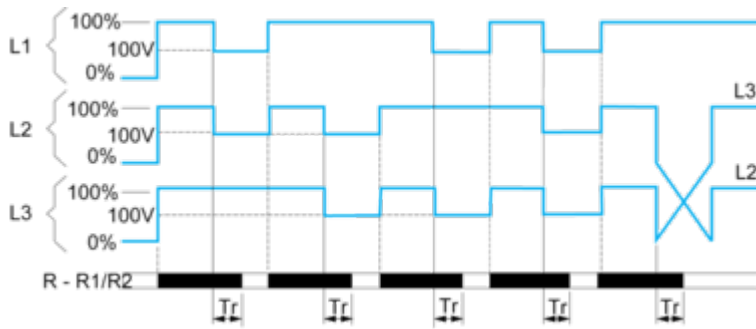
L1,L2,L3 : Supply to be monitored  
11-14,12 : 1st C/O contact of output relay  
21-24,22 : 2nd C/O contact of output relay

Technical Description

Function Diagram

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Phase Sequence Control and Total Loss of Phase Detection



Legend

- $T_r$  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.

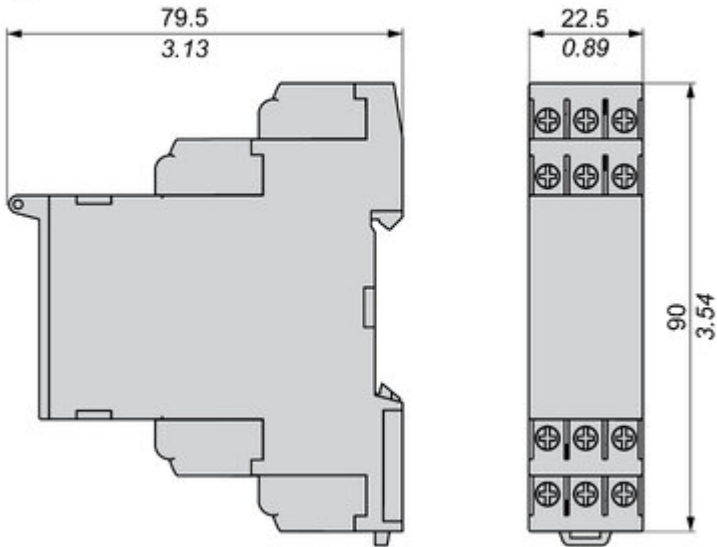


Technical Illustration

Dimensions

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mm  
in.




Offer Marketing Illustration


Product benefits / Features


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## Features


### Harmony Control Relay


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

  
Experience unprecedented accuracy, predictive maintenance, and superior security.



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

  
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.

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.

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

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

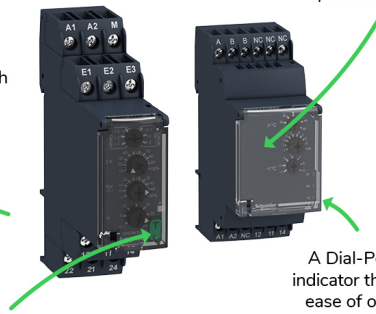


Image of product / Alternate images

Alternative

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