

Product datasheet

Specifications



residual current protection relay,
Vigirex RH21M, 30 mA or 300 mA,
48 VAC 50/60 Hz, DIN rail mounting

56161

! Discontinued

Main

Range	Vigirex
Device short name	RH21M
Product or component type	Residual current protection relay
Relay application	Protection relay
Mounting support	DIN rail
Earth-leakage protection class	Type A
Type of setting	Selector
Residual earth-leakage sensitivity adjustment type	Adjustable 2 settings
Earth-leakage sensitivity	0.03 A 0.3 A
Earth-leakage time delay	Instantaneous for 0.03 A Instantaneous for 0.3 A Fixed 0.06 s for 0.3 A
Current sensors compatibility	Vigirex TOA earth leakage current sensor Vigirex A earth leakage current sensor Vigirex L earth leakage current sensor
[I _{th}] conventional enclosed thermal current	8 A
Minimum load	10 mA at 12 V
[U _s] rated supply voltage	48 V AC 50/60 Hz 55...110 %
Power consumption in VA	4 VA
Monitored distribution system	1000 V - AC at 50/60 Hz (maximum) 1000 V - AC at 400 Hz (maximum)
Earthing system	IT TT TN-S
[U _{imp}] rated impulse withstand voltage	8 kV
Reset	Manual reset

Complementary

Test function	Local Remote test
Monitoring	Electronics (continuous) Power supply (continuous) Relay/sensor link (continuous)
Type of measurement	Earth fault current internal measurement, range: 80...100 %

Tamperproof of settings	Protected by sealable cover
Connections - terminals	<p>Auxiliary power supply: terminal block cable(s) 0.2...2.5 mm² flexible AWG 24...AWG 12</p> <p>Auxiliary power supply: terminal block cable(s) 0.2...2.5 mm² rigid AWG 24...AWG 12</p> <p>Auxiliary power supply: terminal block cable(s) 0.25...2.5 mm² flexible AWG 24...AWG 12</p> <p>Fault: screw terminal cable(s) 0.2...2.5 mm² flexible AWG 24...AWG 12</p> <p>Fault: screw terminal cable(s) 0.2...4 mm² rigid AWG 24...AWG 12</p> <p>Fault: screw terminal cable(s) 0.25...2.5 mm² flexible AWG 24...AWG 12</p> <p>Relay test and fault reset: screw terminal cable(s) 0.14...1 mm² flexible AWG 26...AWG 16</p> <p>Relay test and fault reset: screw terminal cable(s) 0.14...1.5 mm² rigid AWG 26...AWG 16</p> <p>Relay test and fault reset: screw terminal cable(s) 0.25...0.5 mm² flexible AWG 26...AWG 16</p> <p>Sensor: screw terminal cable(s) 0.14...1 mm² flexible AWG 26...AWG 16</p> <p>Sensor: screw terminal cable(s) 0.14...1.5 mm² rigid AWG 26...AWG 16</p> <p>Sensor: screw terminal cable(s) 0.25...0.5 mm² flexible AWG 26...AWG 16</p> <p>Voltage presence: screw terminal cable(s) 0.2...2.5 mm² flexible AWG 24...AWG 12</p> <p>Voltage presence: screw terminal cable(s) 0.2...4 mm² rigid AWG 24...AWG 12</p> <p>Voltage presence: screw terminal cable(s) 0.25...2.5 mm² flexible AWG 24...AWG 12</p>
Wire stripping length	<p>Auxiliary power supply: 7 mm for top connection</p> <p>Fault: 8 mm for bottom connection</p> <p>Relay test and fault reset: 5 mm for bottom connection</p> <p>Sensor: 5 mm for top connection</p> <p>Voltage presence: 8 mm for bottom connection</p>
Tightening torque	<p>Auxiliary power supply: 0.6 N.m top</p> <p>Fault: 0.6 N.m bottom</p> <p>Relay test and fault reset: 0.25 N.m bottom</p> <p>Sensor: 0.25 N.m top</p> <p>Voltage presence: 0.6 N.m bottom</p>
9 mm pitches	6
Standards	<p>EN/IEC 60947-2 Annex M</p> <p>EN/IEC 60755</p> <p>UL 1053</p> <p>CAN/CSA C22.2 No. 144</p>
Width	54 mm
Height	81 mm
Depth	74 mm
Product weight	0.3 kg
IP degree of protection	<p>IP40 on front face: conforming to EN/IEC 60529</p> <p>IP30 on side parts: conforming to EN/IEC 60529</p> <p>IP20 on connection terminals: conforming to EN/IEC 60529</p>
IK degree of protection	IK07 conforming to EN 50102
Mechanical robustness	<p>Fire resistance conforming to IEC 60695-2-1</p> <p>IK protection 2 joules: IK07 conforming to EN 50102</p> <p>Vibrations 13.2...100 Hz: 0.7 g</p> <p>Vibrations 2...13.2 Hz: +/- 1 mm</p>

Environment

Overvoltage category	IV
Electrical shock protection class	Class II
Electromagnetic compatibility	<p>Conducted and radiated emissions: , B, conforming to CISPR 11</p> <p>Conducted radio-frequency immunity test: , 3, conforming to IEC 61000-4-6</p> <p>Electrostatic discharge immunity test: , 4, conforming to IEC 61000-4-2</p> <p>High-energy conducted susceptibility: , 4, conforming to IEC 61000-4-5</p> <p>Low-energy conducted susceptibility: , 4, conforming to IEC 61000-4-4</p> <p>Radiated susceptibility: , 3, conforming to IEC 61000-4-3</p>
Relative humidity	95 % at 55 °C
Pollution degree	3 conforming to IEC 60664-1

Ambient air temperature for operation	-35...70 °C
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Ambient air temperature for storage	-55...85 °C
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Packing Units

Unit Type of Package 1	PCE
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Number of Units in Package 1	1
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Contractual warranty

Warranty (in months)	18
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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	68 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	25 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.1 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	43 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	0.5 kg CO2 eq.

Use Longer



Lifetime extension

Repair	No
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Use Again



Repack and remanufacture

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