# Product data sheet Characteristics

# 56175

residual current protection relay, Vigirex RH99M, 30 mA to 30 A, 440/525 VAC 50/60 Hz, DIN rail mounting





# Main

Device short name RH99M  Product or component type  Relay application Protection relay  Mounting support DIN rail  Earth-leakage Type A  protection class  Type of setting Selector  Residual earth-leakage sensitivity 0.0330 A  Earth-leakage sensitivity 0.0330 A  Earth-leakage time delay Adjustable 9 settings 04.5 s for 0.0330 A  Current sensors Compatibility A earth leakage current sensor A earth leakage current sensor L earth leakage current sensor  L earth leak	Range	Vigirex
Relay application Protection relay  Mounting support DIN rail  Earth-leakage protection class  Type of setting Selector  Residual earth-leakage sensitivity adjustment type  Earth-leakage sensitivity 0.0330 A  Earth-leakage time delay Adjustable 9 settings 04.5 s for 0.0330 A  Current sensors TOA earth leakage current sensor A earth leakage current sensor L earth leakage current sensor L earth leakage current sensor  [Ithe] conventional enclosed thermal current  Minimum load 10 mA at 12 V  [Us] rated supply voltage  Power consumption in VA  Monitored distribution system 1000 V - AC at 50/60 Hz (maximum) system TT IT IT TN-S	Device short name	RH99M
Mounting support  Earth-leakage protection class  Type of setting  Residual earth-leakage sensitity adjustment type  Earth-leakage sensitivity  Earth-leakage time delay  Current sensors compatibility  Instantaneous for 0.03 A Adjustable 9 settings 04.5 s for 0.0330 A  Current sensors compatibility  Instantaneous for 0.03 A Adjustable 9 settings 04.5 s for 0.0330 A  Current sensors compatibility  Instantaneous for 0.03 A Adjustable 9 settings 04.5 s for 0.0330 A  Current sensors compatibility  Instantaneous for 0.03 A Adjustable 9 settings 04.5 s for 0.0330 A  Current sensors A earth leakage current sensor L earth leakage current sensor  Instantaneous for 0.03 A Adjustable 9 settings 04.5 s for 0.0330 A  Current sensors A earth leakage current sensor A earth leakage	•	Residual current protection relay
Earth-leakage protection class  Type of setting  Residual earth-leakage sensitivity adjustment type  Earth-leakage time delay  Current sensors  Compatibility  Instantaneous for 0.03 A  Adjustable 9 settings 04.5 s for 0.0330 A  Current sensors  Compatibility  TOA earth leakage current sensor  L earth leakage current sensor  L earth leakage current sensor  Instantaneous for 0.03 A  Adjustable 9 settings 04.5 s for 0.0330 A  Current sensors  TOA earth leakage current sensor  L earth leakage current sensor  In ear	Relay application	Protection relay
Type of setting  Residual earth-leakage sensitity adjustment type  Earth-leakage sensitivity  Earth-leakage time delay  Current sensors compatibility  [Ithe] conventional enclosed thermal current  Minimum load  [Us] rated supply voltage  Power consumption in VA  Monitored distribution system  Type of setting  Selector  Adjustable 9 settings  Instantaneous for 0.03 A Adjustable 9 settings 04.5 s for 0.0330 A  TOA earth leakage current sensor A earth leakage current sensor L earth leakage current sensor  Instantaneous for 0.03 A Adjustable 9 settings  Instantaneous for 0.03 A Adjustable 9 settin	Mounting support	DIN rail
Residual earth-leakage sensitivy adjustment type  Earth-leakage sensitivity 0.0330 A  Earth-leakage time delay Instantaneous for 0.03 A Adjustable 9 settings 04.5 s for 0.0330 A  Current sensors TOA earth leakage current sensor A earth leakage current sensor L earth leakage current sensor  [Ithe] conventional enclosed thermal current  Minimum load 10 mA at 12 V  [Us] rated supply voltage Power consumption in VA  Monitored distribution system 1000 V - AC at 50/60 Hz (maximum) 1000 V - AC at 400 Hz (maximum)  Earthing system TT  IT  TN-S	<u> </u>	Type A
Earth-leakage sensitivity  Earth-leakage sensitivity  Earth-leakage sensitivity  Current sensors compatibility  TOA earth leakage current sensor L earth leakage current sensor  [Ithe] conventional enclosed thermal current  Minimum load  10 mA at 12 V  [Us] rated supply voltage  Power consumption in VA  Monitored distribution system  1000 V - AC at 50/60 Hz (maximum) 1000 V - AC at 400 Hz (maximum)  TT IT TN-S	Type of setting	Selector
Earth-leakage time delay Adjustable 9 settings 04.5 s for 0.0330 A  Current sensors compatibility TOA earth leakage current sensor A earth leakage current sensor L earth leakage current sensor  [Ithe] conventional enclosed thermal current Polymer to make the sensor and the sensor are the sensor below the sensor and the sensor below the se	sensitity adjustment	Adjustable 9 settings
delay  Adjustable 9 settings 04.5 s for 0.0330 A  Current sensors compatibility  TOA earth leakage current sensor A earth leakage current sensor L earth leakage current sensor  [Ithe] conventional enclosed thermal current  Minimum load  10 mA at 12 V  [Us] rated supply voltage  Power consumption in VA  Monitored distribution system  TT IT TN-S	Earth-leakage sensitivity	0.0330 A
compatibility  A earth leakage current sensor L earth leakage current sensor  [Ithe] conventional enclosed thermal current  Minimum load  10 mA at 12 V  [Us] rated supply voltage  Power consumption in VA  Monitored distribution system  1000 V - AC at 50/60 Hz (maximum) 1000 V - AC at 400 Hz (maximum)  TT IT TN-S	<u> </u>	
enclosed thermal current  Minimum load  10 mA at 12 V  [Us] rated supply voltage  Power consumption in VA  Monitored distribution system  1000 V - AC at 50/60 Hz (maximum) 1000 V - AC at 400 Hz (maximum)  TT  IT  TN-S		A earth leakage current sensor
[Us] rated supply voltage  Power consumption in VA  Monitored distribution system  Earthing system  A 40525 V AC 50/60 Hz 70110 %  4 VA  4 VA  4 VA  1000 V - AC at 50/60 Hz (maximum)  1000 V - AC at 400 Hz (maximum)  TT  IT  TN-S	enclosed thermal	8 A
Power consumption in VA  Monitored distribution system 1000 V - AC at 50/60 Hz (maximum)  Earthing system TT  IT  TN-S	Minimum load	10 mA at 12 V
Monitored distribution system 1000 V - AC at 50/60 Hz (maximum) 1000 V - AC at 400 Hz (maximum)  Earthing system TT IT TN-S		440525 V AC 50/60 Hz 70110 %
system 1000 V - AC at 400 Hz (maximum)  Earthing system TT  IT  TN-S	•	4 VA
IT TN-S		,
Reset Manual reset	Earthing system	IT
	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: 80100 %
Tamperproof of settings	Protected by sealable cover
Connections - terminals	Auxiliary power supply: terminal block cable(s) 0.22.5 mm² flexible AWG 24AWG 12 Auxiliary power supply: terminal block cable(s) 0.22.5 mm² rigid AWG 24AWG 12 Auxiliary power supply: terminal block cable(s) 0.252.5 mm² flexible AWG 24AWG 12 Fault: screw terminal cable(s) 0.22.5 mm² flexible AWG 24AWG 12 Fault: screw terminal cable(s) 0.24 mm² rigid AWG 24AWG 12 Fault: screw terminal cable(s) 0.252.5 mm² flexible AWG 24AWG 12 Relay test and fault reset: screw terminal cable(s) 0.141 mm² flexible AWG 26AWG 16 Relay test and fault reset: screw terminal cable(s) 0.141.5 mm² rigid AWG 26AWG 16 Relay test and fault reset: screw terminal cable(s) 0.250.5 mm² flexible AWG 26AWG 16 Sensor: screw terminal cable(s) 0.141 mm² flexible AWG 26AWG 16 Sensor: screw terminal cable(s) 0.141.5 mm² rigid AWG 26AWG 16 Sensor: screw terminal cable(s) 0.250.5 mm² flexible AWG 26AWG 16 Voltage presence: screw terminal cable(s) 0.22.5 mm² flexible AWG 24AWG 12 Voltage presence: screw terminal cable(s) 0.24 mm² rigid AWG 24AWG 12 Voltage presence: screw terminal cable(s) 0.252.5 mm² flexible AWG 24AWG 12 Voltage presence: screw terminal cable(s) 0.252.5 mm² flexible AWG 24AWG 12
Wire stripping length	Auxiliary power supply: 7 mm for top connection Fault: 8 mm for bottom connection Relay test and fault reset: 5 mm for bottom connection Sensor: 5 mm for top connection Voltage presence: 8 mm for bottom connection
Tightening torque	Auxiliary power supply: 0.6 N.m top Fault: 0.6 N.m bottom Relay test and fault reset: 0.25 N.m bottom Sensor: 0.25 N.m top Voltage presence: 0.6 N.m bottom
9 mm pitches	6
Width	54 mm
Height	81 mm
Depth	74 mm
Net weight	0.3 kg
IP degree of protection	IP40 on front face: conforming to EN/IEC 60529 IP30 on side parts: conforming to EN/IEC 60529 IP20 on connection terminals: conforming to EN/IEC 60529
IK degree of protection	IK07 conforming to EN 50102
Mechanical robustness	Fire resistance conforming to IEC 60695-2-1 IK protection 2 joules: IK07 conforming to EN 50102 Vibrations 13.2100 Hz: 0.7 g Vibrations 213.2 Hz: +/- 1 mm

#### Environment

Overvoltage category	IV
Electrical shock protection class	Class II
Electromagnetic compatibility	Conducted and radiated emissions: , B, conforming to CISPR 11 Conducted radio-frequency immunity test: , 3, conforming to IEC 61000-4-6 Electrostatic discharge immunity test: , 4, conforming to IEC 61000-4-2 High-energy conducted susceptibility: , 4, conforming to IEC 61000-4-5 Low-energy conducted susceptibility: , 4, conforming to IEC 61000-4-4 Radiated susceptibility: , 3, conforming to IEC 61000-4-3
Relative humidity	95 % at 55 °C
Pollution degree	3 conforming to IEC 60664-1
Ambient air temperature for operation	-3570 °C
Ambient air temperature for storage	-5585 °C

## Packing Units

Package 1 Weight	0.304 kg	
Package 1 Height	0.880 dm	
Package 1 width	0.810 dm	
Package 1 Length	0.820 dm	

### Offer Sustainability

Sustainable offer status	Green Premium product	
REACh Regulation	REACh Declaration	
EU RoHS Directive	Compliant EEU RoHS Declaration	
Mercury free	Yes	
RoHS exemption information	₫Yes	
China RoHS Regulation	China RoHS Declaration	
Environmental Disclosure	Product Environmental Profile	
Circularity Profile	End Of Life Information	
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins	
PVC free	Yes	

#### Contractual warranty

Contractical warranty		
Warranty	18 months	