

Product datasheet

Specifications



TeSys LRF - electronic thermal overload relay - 300...500 A - class 10/20

LR9F79

⚠ Discontinued on: 15 Jun 2023

⚠ Discontinued

Main

Range	TeSys
Product name	TeSys LRF
Device short name	LR9F
Product or component type	Electronic thermal overload relay
Relay application	Motor protection
Product compatibility	LC1F225...LC1F500
Network type	AC
Thermal overload class	Class 10/20 conforming to IEC 60947-4
Thermal protection adjustment range	300...500 A
Signalling function	Pre-alarm indicator

Complementary

Network frequency	50/60 Hz
[Us] rated supply voltage	24 V DC for alarm circuit
Supply voltage limits	17...32 V (alarm circuit)
Mounting support	Direct on contactor Plate
Tripping threshold	1.05 +/- 0.06 In alarm conforming to IEC 60947-4-1 1.12 +/- 0.06 In tripping conforming to IEC 60947-4-1
Surge withstand	4 kV conforming to IEC 61000-4-5
Contacts type and composition	1 NO + 1 NC
[Ith] conventional free air thermal current	5 A for control circuit
[Ue] rated operational voltage	1000 V AC 50/60 Hz for power circuit conforming to VDE 0110 group C
[Ui] rated insulation voltage	Power circuit: 1000 V AC conforming to IEC 60947-4
[Uimp] rated impulse withstand voltage	8 kV conforming to IEC 60947-1
Phase failure sensitivity	Tripping in 4 s +/- 20 % conforming to IEC 60947-4-1
Reset	Manual reset
Control type	Dial white full-load current adjustment Test button red Push-button reset Push-button red stop Selector switch load balancing Selector switch class 10/20

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Local signalling	Alarm Trip indicator
Temperature compensation	-20...70 °C
Current consumption	<= 5 mA no-load
switching capacity for alarm	0...150 mA
Maximum voltage drop	<2.5 V closed state
Connections - terminals	Control circuit: screw clamp terminals 1 cable 0.75...2.5 mm² - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 1 cable 0.75...2.5 mm² - cable stiffness: solid Control circuit: screw clamp terminals 1 cable 0.75...4 mm² - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 2 cable 1...1.5 mm² - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 2 cable 1...2.5 mm² - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 2 cable 1 mm² - cable stiffness: solid Power circuit: lugs-ring terminals M10 Alarm circuit: screw clamp terminals 1 cable 0.5...1.5 mm² - cable stiffness: flexible - without cable end
Tightening torque	Control circuit: 1.2 N.m on screw clamp terminals Power circuit: 35 N.m on screw clamp terminals Alarm circuit: 0.45 N.m on screw clamp terminals
Height	136.8 mm
Width	150 mm
Depth	127.6 mm
Net weight	2.32 kg

Environment

Standards	VDE 0660 EN 60947-4-1 IEC 60947-4-1 IEC 60255-17 IEC 60255-8
Product certifications	UL CSA UKCA
Protective treatment	TH
IP degree of protection	IP20 conforming to IEC 60529
Ambient air temperature for operation	-20...55 °C conforming to IEC 60255-8
Ambient air temperature for storage	-40...85 °C
Operating altitude	<= 2000 m without derating
Fire resistance	850 °C conforming to IEC 60695-2-1
Mechanical robustness	Shocks: 13 Gn for 11 ms conforming to IEC 60068-2-7 Vibrations 5...300 Hz: 2 GN conforming to IEC 60068-2-6
Dielectric strength	6 kV 50 Hz conforming to IEC 255-5
Electromagnetic compatibility	Resistance to electrostatic discharge: 6 kV in indirect mode conforming to IEC 61000-4-2 Resistance to electrostatic discharge: 8 kV in air conforming to IEC 61000-4-2 Radiated radio-frequency electromagnetic field immunity test: 10 V/m conforming to IEC 61000-4-3 Fast transients immunity test: 2 kV conforming to IEC 61000-4-4

Packing Units

Unit Type of Package 1	PCE
------------------------	-----

Number of Units in Package 1	1
Package 1 Height	16.0 cm
Package 1 Width	18.0 cm
Package 1 Length	17.0 cm
Package 1 Weight	2.063 kg

Contractual warranty

Warranty (in months)	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	144 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Carbon footprint of the manufacturing phase [A1 to A3]	11 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	2 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.3 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	127 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	4 kg CO2 eq.

Use Better

 Materials and Substances	
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
SCIP Number	D5a17874-1166-4927-b008-33d15e304a41
PVC free	Yes

Use Longer

 Lifetime extension	
Repair	No

Use Again

 Repack and remanufacture	
Recyclability potential, in %	92
End of life manual availability	End of Life Information
Take-back	No
WEEE Label	 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins