

Product data sheet

Specifications



TeSys LRF - electronic thermal overload relay - 380...630 A - class 20

LR9F7581

⚠ Discontinued on: Apr 30, 2025

⚠ To be discontinued

Product availability: Stock - Normally stocked in distribution facility

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	LC1F400...LC1F630 LC1F800
Network type	AC
Thermal overload class	Class 20 IEC 60947-4
Thermal protection adjustment range	380...630 A
Signalling function	Pre-alarm indicator

Complementary

Network Frequency	50/60 Hz
Mounting support	Direct on contactor Plate
Tripping threshold	1.12 +/- 0.06 In tripping IEC 60947-4-1
Surge withstand	4 kV IEC 61000-4-5
Contacts type and composition	1 NO + 1 NC
[Ith] conventional free air thermal current	5 A control circuit
[Ue] rated operational voltage	1000 V AC 50/60 Hz power circuit VDE 0110 group C
[Ui] rated insulation voltage	Power circuit 1000 V AC IEC 60947-4
[Uimp] rated impulse withstand voltage	8 kV IEC 60947-1
Phase failure sensitivity	Tripping in 4 s +/- 20 % IEC 60947-4-1
Reset	Manual reset
Control type	Dial White full-load current adjustment Test button Red Push-button Red reset Push-button stop
Local signalling	Trip indicator
Temperature compensation	-4...158 °F (-20...70 °C)
Current consumption	<= 5 mA no-load

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

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

switching capacity for alarm	0...150 mA
Maximum voltage drop	<2.5 V closed state
Connections - terminals	Control circuit screw clamp terminals 1 0.001...0.004 in² (0.75...2.5 mm²) flexible - with cable end Control circuit screw clamp terminals 1 0.001...0.004 in² (0.75...2.5 mm²) solid Control circuit screw clamp terminals 1 0.001...0.006 in² (0.75...4 mm²) flexible - without cable end Control circuit screw clamp terminals 2 0.002...0.002 in² (1...1.5 mm²) flexible - with cable end Control circuit screw clamp terminals 2 0.002...0.004 in² (1...2.5 mm²) flexible - without cable end Control circuit screw clamp terminals 2 0.002 in² (1 mm²) solid Power circuit lugs-ring terminals M12
Tightening torque	Control circuit 1.2 N.m screw clamp terminals Power circuit 58 N.m screw clamp terminals
Height	9.008 in (228.8 mm)
Width	7.6 in (193 mm)
Depth	5.02 in (127.6 mm)
Product Weight	9.17 lb(US) (4.16 kg)

Environment

Standards	IEC 60947-4-1 IEC 60255-8 EN 60947-4-1 IEC 60255-17 VDE 0660
Product Certifications	UL CSA UKCA
Protective treatment	TH
IP degree of protection	IP20 conforming to IEC 60529
Ambient air temperature for operation	-4...131 °F (-20...55 °C) IEC 60255-8
Ambient Air Temperature for Storage	-40...185 °F (-40...85 °C)
Operating altitude	<= 6561.68 ft (2000 m) without derating
Fire resistance	1562 °F (850 °C) IEC 60695-2-1
Mechanical robustness	Shocks13 Gn for 11 ms IEC 60068-2-7 Vibrations 5...300 Hz2 GN IEC 60068-2-6
Dielectric strength	6 kV 50 Hz IEC 255-5
Electromagnetic compatibility	Resistance to electrostatic discharge 6 kV in indirect mode IEC 61000-4-2 Resistance to electrostatic discharge 8 kV in air IEC 61000-4-2 Radiated radio-frequency electromagnetic field immunity test 10 V/m IEC 61000-4-3 Fast transients immunity test 2 kV IEC 61000-4-4

Ordering and shipping details

Category	US10I1222334
Discount Schedule	0I12
GTIN	3389110640236
Returnability	Yes
Country of origin	FR

Packing Units

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

Nbr. of units in pkg.	1
Package 1 Height	6.3 in (16.0 cm)
Package 1 Width	7.09 in (18.0 cm)
Package 1 Length	6.7 in (17.0 cm)
Package weight(Lbs)	7.873 lb(US) (3.571 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	158 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	20 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	3 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.5 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]	8 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile

Use Better



Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
SCIP Number	D5a17874-1166-4927-b008-33d15e304a41
EU RoHS Directive	Compliant By Exemption
REACH Regulation	Reference contains Substances of Very High Concern above the threshold
California proposition 65	WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov
PVC free	Yes

Use Longer



Lifetime extension

Repair	No
--------	----

Use Again



Repack and remanufacture

Recyclability potential, in %	92
Circularity Profile	End of Life Information
Take-back	No