

# Product data sheet

Specifications



## TeSys LRF - electronic thermal overload relay - 90...150 A - class 10/20

LR9F69

⚠ To be discontinued

⚠ To be discontinued on: 31 March 2023

⚠ To be end-of-service on: 31 December 2023

Product availability : Stock - Normally stocked in distribution facility

Price\* : 388.00 USD

### 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	LC1F115...LC1F185
Network type	AC
Thermal overload class	Class 10/20 IEC 60947-4
Thermal protection adjustment range	90...150 A
Signalling function	Pre-alarm indicator

### Complementary

Network Frequency	50/60 Hz
[Us] rated supply voltage	24 V DC alarm circuit
Supply voltage limits	17...32 V alarm circuit)
Mounting support	Direct on contactor Plate
Tripping threshold	1.05 +/- 0.06 In alarm IEC 60947-4-1 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

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

<b>Phase failure sensitivity</b>	Tripping in 4 s +/- 20 % IEC 60947-4-1
<b>Reset</b>	Manual reset
<b>Control type</b>	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
<b>Local signalling</b>	Trip indicator Alarm
<b>Temperature compensation</b>	-4...158 °F (-20...70 °C)
<b>Current consumption</b>	<= 5 mA no-load
<b>Switching capacity for alarm</b>	0...150 mA
<b>Maximum voltage drop</b>	<2.5 V closed state
<b>Connections - terminals</b>	Control circuit screw clamp terminals 1 0.00...0.00 in <sup>2</sup> (0.75...2.5 mm <sup>2</sup> ) flexible - with cable end Control circuit screw clamp terminals 1 0.00...0.00 in <sup>2</sup> (0.75...2.5 mm <sup>2</sup> ) solid Control circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (0.75...4 mm <sup>2</sup> ) flexible - without cable end Control circuit screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (1...1.5 mm <sup>2</sup> ) flexible - with cable end Control circuit screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) flexible - without cable end Control circuit screw clamp terminals 2 0.00 in <sup>2</sup> (1 mm <sup>2</sup> ) solid Power circuit lugs-ring terminals M8 Alarm circuit screw clamp terminals 1 0.00...0.00 in <sup>2</sup> (0.5...1.5 mm <sup>2</sup> ) flexible - without cable end
<b>Tightening torque</b>	Control circuit 1.2 N.m screw clamp terminals Power circuit 18 N.m screw clamp terminals Alarm circuit 0.45 N.m screw clamp terminals
<b>Height</b>	3.78 in (96 mm)
<b>Width</b>	4.53 in (115 mm)
<b>Depth</b>	4.86 in (123.5 mm)
<b>Net Weight</b>	1.95 lb(US) (0.885 kg)

## Environment

<b>Standards</b>	IEC 60255-17 VDE 0660 EN 60947-4-1 IEC 60255-8 IEC 60947-4-1
<b>Product Certifications</b>	CSA UL UKCA
<b>Protective treatment</b>	TH
<b>IP degree of protection</b>	IP20 conforming to IEC 60529
<b>Ambient air temperature for operation</b>	-4...131 °F (-20...55 °C) IEC 60255-8
<b>Ambient Air Temperature for Storage</b>	-40...185 °F (-40...85 °C)
<b>Operating altitude</b>	<= 6561.68 ft (2000 m) without derating
<b>Fire resistance</b>	1562 °F (850 °C) IEC 60695-2-1
<b>Mechanical robustness</b>	Shocks 13 Gn for 11 ms IEC 60068-2-7 Vibrations 5...300 Hz 2 GN IEC 60068-2-6
<b>Dielectric strength</b>	6 kV 50 Hz IEC 255-5
<b>Electromagnetic compatibility</b>	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

<b>Category</b>	22334-CONTACTOR,F-LINE,OVERLOADS
<b>Discount Schedule</b>	112

GTIN	3389118057548
Returnability	No
Country of origin	FR

## Packing Units

Unit Type of Package 1	Db
Number of Units in Package 1	1
Package 1 Height	5.91 in (15.0 cm)
Package 1 Width	6.30 in (16.0 cm)
Package 1 Length	5.12 in (13.0 cm)
Package 1 Weight	31.89 oz (904.0 g)

## Offer Sustainability

Sustainable offer status	Green Premium product
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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Compliant <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
China RoHS Regulation	<a href="#">China RoHS declaration</a> Product out of China RoHS scope. Substance declaration for your information.
RoHS exemption information	Yes
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End of Life Information</a>
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

Warranty	18 months
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## Recommended replacement(s)

LR9F69 is replaced by:

1x



Electronic thermal overload relay, TeSys Giga, 57...225 A, class 5E...30E, push-in control connection  
LR9G225