# Product data sheet

Specifications



To be discontinued

## TeSys LRF - electronic thermal overload relay - 60...100 A - class 10/20

LR9F67

To be discontinued on: 31 December 2023

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

**Product availability : Non-Stock - Not 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** | 60…100 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<br>Plate |
| **Tripping threshold** | 1.05 +/- 0.06 In alarm IEC 60947-4-1<br>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.

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

| | |
|---|---|
| **Phase failure sensitivity** | Tripping in 4 s +/- 20 % IEC 60947-4-1 |
| **Reset** | Manual reset |
| **Control type** | Dial White full-load current adjustment<br>Test button Red<br>Push-button reset<br>Push-button Red stop<br>Selector switch load balancing<br>Selector switch class 10/20 |
| **Local signalling** | Trip indicator<br>Alarm |
| **Temperature compensation** | -4…158 °F (-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 0.00…0.00 in² (0.75…2.5 mm²) flexible - with cable end<br>Control circuit screw clamp terminals 1 0.00…0.00 in² (0.75…2.5 mm²) solid<br>Control circuit screw clamp terminals 1 0.00…0.01 in² (0.75…4 mm²) flexible - without cable end<br>Control circuit screw clamp terminals 2 0.00…0.00 in² (1…1.5 mm²) flexible - with cable end<br>Control circuit screw clamp terminals 2 0.00…0.00 in² (1…2.5 mm²) flexible - without cable end<br>Control circuit screw clamp terminals 2 0.00 in² (1 mm²) solid<br>Power circuit lugs-ring terminals M8<br>Alarm circuit screw clamp terminals 1 0.00…0.00 in² (0.5…1.5 mm²) flexible - without cable end |
| **Tightening torque** | Control circuit 1.2 N.m screw clamp terminals<br>Power circuit 18 N.m screw clamp terminals<br>Alarm circuit 0.45 N.m screw clamp terminals |
| **Height** | 3.78 in (96 mm) |
| **Width** | 4.53 in (115 mm) |
| **Depth** | 4.86 in (123.5 mm) |
| **Net Weight** | 1.98 lb(US) (0.9 kg) |

## Environment

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|---|---|
| **Standards** | IEC 60255-17<br>VDE 0660<br>EN 60947-4-1<br>IEC 60947-4-1<br>IEC 60255-8 |
| **Product Certifications** | CSA<br>UL<br>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<br>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<br>Resistance to electrostatic discharge 8 kV in air IEC 61000-4-2<br>Radiated radio-frequency electromagnetic field immunity test 10 V/m IEC 61000-4-3<br>Fast transients immunity test 2 kV IEC 61000-4-4 |

## Ordering and shipping details

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|---|---|
| **Category** | 22334 - CONTACTOR,F-LINE,OVERLOADS |
| **Discount Schedule** | I12 |

| | |
|---|---|
| **GTIN** | 3389118057531 |
| **Nbr. of units in pkg.** | 1 |
| **Package weight(Lbs)** | 32.45 oz (920 g) |
| **Returnability** | No |
| **Country of origin** | FR |

## Packing Units

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|---|---|
| **Unit Type of Package 1** | PCE |
| **Package 1 Height** | 6.10 in (15.5 cm) |
| **Package 1 width** | 6.30 in (16 cm) |
| **Package 1 Length** | 5.12 in (13 cm) |

## Offer Sustainability

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|---|---|
| **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 www.P65Warnings.ca.gov |
| **REACh Regulation** | REACh Declaration |
| **EU RoHS Directive** | Compliant<br>EU RoHS Declaration |
| **Mercury free** | Yes |
| **RoHS exemption information** | Yes |
| **China RoHS Regulation** | China RoHS declaration<br>Product out of China RoHS scope. Substance declaration for your information. |
| **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

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|---|---|
| **Warranty** | 18 months |