# Product datasheet

Specifications

Green Premium™

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

Local distributor code:

380914722 LR9F5567

Discontinued on: 15 Jun 2023

Discontinued

**EAN Code: 3389110640182**

## 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 20 conforming to IEC 60947-4 |
| **Thermal Protection Adjustment Range** | 60…100 A |
| **Signalling Function** | Pre-alarm indicator |

## Complementary

| | |
|---|---|
| **Network Frequency** | 50/60 Hz |
| **Mounting Support** | Direct on contactor<br>Plate |
| **Tripping Threshold** | 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<br>Test button red<br>Push-button red reset<br>Push-button stop |
| **Local Signalling** | Trip indicator |
| **Temperature Compensation** | -20…70 °C |
| **Current Consumption** | <= 5 mA no-load |
| **Switching Capacity For Alarm** | 0...150 mA |

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

| | |
|---|---|
| **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<br>Control circuit: screw clamp terminals 1 cable 0.75…2.5 mm² - cable stiffness: solid<br>Control circuit: screw clamp terminals 1 cable 0.75…4 mm² - cable stiffness: flexible - without cable end<br>Control circuit: screw clamp terminals 2 cable 1…1.5 mm² - cable stiffness: flexible - with cable end<br>Control circuit: screw clamp terminals 2 cable 1…2.5 mm² - cable stiffness: flexible - without cable end<br>Control circuit: screw clamp terminals 2 cable 1 mm² - cable stiffness: solid<br>Power circuit: lugs-ring terminals M8 |
| **Tightening Torque** | Control circuit: 1.2 N.m on screw clamp terminals<br>Power circuit: 18 N.m on screw clamp terminals |
| **Height** | 96 mm |
| **Width** | 115 mm |
| **Depth** | 123.5 mm |
| **Net Weight** | 0.9 kg |

## Environment

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

## Packing Units

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|---|---|
| **Unit Type Of Package 1** | PCE |
| **Number Of Units In Package 1** | 1 |
| **Package 1 Height** | 15.500 cm |
| **Package 1 Width** | 16.000 cm |
| **Package 1 Length** | 13.000 cm |
| **Package 1 Weight** | 882.000 g |
| **Unit Type Of Package 2** | S04 |

| | |
|---|---|
| **Number Of Units In Package 2** | 12 |
| **Package 2 Height** | 30.000 cm |
| **Package 2 Width** | 40.000 cm |
| **Package 2 Length** | 60.000 cm |
| **Package 2 Weight** | 11.430 kg |

## Contractual warranty

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

## Sustainability

**Green Premium™ label** is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-$CO_2$ products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >

Transparency RoHS/REACh

## Well-being performance

| | |
|---|---|
| Mercury Free | |
| Rohs Exemption Information | Yes |
| Pvc Free | |

## Certifications & Standards

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|---|---|
| **Reach Regulation** | REACh Declaration |
| **Eu Rohs Directive** | Compliant with Exemptions |
| **China Rohs Regulation** | China RoHS declaration<br>Product out of China RoHS scope. Substance declaration for your information |
| **Environmental Disclosure** | Product Environmental Profile |
| **Weee** | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| **Circularity Profile** | End of Life Information |