# Product datasheet

Specifications



## TeSys LRF - electronic thermal overload relay - 132...220 A - class 20

Local distributor code:

380914748 LR9F5571

Discontinued on: 15 Jun 2023

Discontinued

**EAN Code: 3389110640205**

## 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** | LC1F185...LC1F265 |
| **Network type** | AC |
| **Thermal overload class** | Class 20 conforming to IEC 60947-4 |
| **Thermal protection adjustment range** | 132…220 A |

## 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 on front relay |
| **Control type** | Dial white full-load current adjustment<br>Test button red<br>Push-button reset<br>Push-button red stop |
| **Local signalling** | 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 |

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

| | |
|---|---|
| **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 M10 |
| **Tightening torque** | Control circuit: 1.2 N.m on screw clamp terminals<br>Power circuit: 35 N.m on screw clamp terminals |
| **Height** | 101 mm |
| **Width** | 115 mm |
| **Depth** | 123.5 mm |
| **Net weight** | 0.95 kg |

## Environment

| | |
|---|---|
| **Standards** | IEC 60255-8<br>EN 60947-4-1<br>IEC 60255-17<br>IEC 60947-4-1<br>VDE 0660 |
| **Product certifications** | CSA<br>UL<br>UKCA |
| **Protective treatment** | TH |
| **IP degree of protection** | IP20 conforming to IEC 60529<br>IP20 conforming to VDE 0106 |
| **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

| | |
|---|---|
| **Unit Type of Package 1** | PCE |
| **Number of Units in Package 1** | 1 |
| **Package 1 Height** | 13.0 cm |
| **Package 1 Width** | 15.0 cm |
| **Package 1 Length** | 16.0 cm |
| **Package 1 Weight** | 1.02 kg |
| **Unit Type of Package 2** | S04 |
| **Number of Units in Package 2** | 11 |

| | |
|---|---|
| **Package 2 Height** | 30.0 cm |
| **Package 2 Width** | 40.0 cm |
| **Package 2 Length** | 60.0 cm |
| **Package 2 Weight** | 12.1 kg |

## Logistical informations

| | |
|---|---|
| **Country of origin** | FR |

## 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 | **133 kg CO2 eq.** |
| Carbon footprint of the manufacturing phase [A1 to A3] | **4 kg CO2 eq.** |
| Carbon footprint of the distribution phase [A4] | **0.6 kg CO2 eq.** |
| Carbon footprint of the installation phase [A5] | **0.1 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] | **2 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** |
| PVC free | **Yes** |

## 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** |