Product data sheet
Characteristics

LR9F7381
TeSys LRF - electronic thermal overload relay - 380...630 A - class 10



Commercial status
End of Commercialisation : DEC 30, 2024

⚠ End of Commercialisation

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	LC1F800 LC1F400...LC1F630
Network type	AC
Thermal overload class	Class 10 conforming to 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 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 Test button red Push-button red reset Push-button stop
Local signalling	Trip indicator
Temperature compensation	-20…70 °C
Current consumption	<= 5 mA no-load
Switching capacity in mA	0...150 mA
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 Control circuit: screw clamp terminals 1 cable 0.75…2.5 mm² - cable stiffness: solid Control circuit: screw clamp terminals 1 cable 0.75…4 mm² - cable stiffness: flexible - without cabl Control circuit: screw clamp terminals 2 cable 1…1.5 mm² - cable stiffness: flexible - with cable en Control circuit: screw clamp terminals 2 cable 1…2.5 mm² - cable stiffness: flexible - without cable Control circuit: screw clamp terminals 2 cable 1 mm² - cable stiffness: solid Power circuit: lugs-ring terminals M12
Tightening torque	Control circuit: 1.2 N.m on screw clamp terminals Power circuit: 58 N.m on screw clamp terminals
Height	228.8 Mm
Width	193 Mm
Depth	127.6 Mm
Net weight	4.16 Kg

Environment

Standards	VDE 0660 IEC 60255-17 IEC 60255-8 EN 60947-4-1 IEC 60947-4-1
Product certifications	CSA[RETURN]UL[RETURN]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 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 Resistance to electrostatic discharge: 8 kV in air conforming to IEC 61000-4-2 Radiated radio-frequency electromagnetic field immunity test: 10 V/m conforming to IEC 61000-4- 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	20.000 Cm
Package 1 Width	24.000 Cm
Package 1 Length	21.000 Cm
Package 1 Weight	3.466 Kg
Unit Type of Package 2	P06
Number of Units in Package 2	36
Package 2 Height	75.000 Cm
Package 2 Width	60.000 Cm
Package 2 Length	80.000 Cm
Package 2 Weight	140.656 Kg

Offer Sustainability

Recyclability potential, in %	92
Total lifecycle Carbon footprint	158 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	20.213291423556576
Carbon footprint of the manufacturing phase [A1 to A3]	20 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	2.7664918988474274
Carbon footprint of the distribution phase [A4]	3 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.5298392101427523
Carbon footprint of the installation phase [A5]	0.5 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	126.69793890788517
Carbon footprint of the use phase [B2, B3, B4, B6]	127 kg CO2 eq.

Mercury free	Yes
Sustainable packaging	No
Carbon footprint of the end-of-life phase [C1 to C4]	7.695130721619887
Carbon footprint of the end-of-life phase [C1 to C4]	8 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	158
Packaging made with recycled cardboard	No
Packaging without single use plastic	No
SCIP Number	D5a17874-1166-4927-b008-33d15e304a41
EU RoHS Directive	Compliant By Exemption
California proposition 65	WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony tr
PVC free	Yes
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 a

Contractual warranty

Warranty (in months)	18

Product Life Status : End of commerc. - Block