

Product data sheet

Specifications



Thermal overload relay, Easy TeSys Protect, 12-18A, class 10A, for LC1E18-38

LRE21

Main

Range	Easy TeSys
Range of product	Easy TeSys Protect
Product or component type	Differential thermal overload relay
Device short name	LRE
Relay application	Motor protection
Phase failure sensitivity	Tripping current 130 % of I _r on two phase, the last one at 0 conforming to IEC 60947-4-1
Colour	Grey (RAL 7011)

Complementary

Product compatibility	LC1E18...38
Network type	AC
Network frequency	50...60 Hz
Mounting support	Under contactor Plate, with specific accessories Rail, with specific accessories
Thermal overload class	Class 10A conforming to IEC 60947-4-1
Signalling function	Relay trip indicator
Thermal protection adjustment range	12...18 A
Tripping threshold	1.14 +/- 0.06 I _r conforming to IEC 60947-4-1
Mechanical robustness	Shocks: 6 Gn for 11 ms conforming to IEC 60068-2-7 Vibrations: 3 GN conforming to IEC 60068-2-6
Auxiliary contact composition	1 NO + 1 NC
[I _{th}] conventional free air thermal current	5 A for signalling circuit
[U _e] rated operational voltage	<= 690 V AC
Associated fuse rating	35 A gG for power circuit 20 A aM for power circuit 5 A gG for signalling circuit
[U _i] rated insulation voltage	690 V conforming to IEC 60947-4-1
[U _{imp}] rated impulse withstand voltage	6 kV
Local signalling	Trip indicator
Control type	Push-button red stop: Push-button green reset:
Temperature compensation	-20...60 °C

Connections - terminals	Power circuit: screw clamp terminals 1 1.5...6 mm ² - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 1 1...4 mm ² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 1...6 mm ² - cable stiffness: solid without cable end Signalling circuit: screw clamp terminals 2 1...2.5 mm ² - cable stiffness: flexible without cable end Signalling circuit: screw clamp terminals 2 1...2.5 mm ² - cable stiffness: flexible with cable end Signalling circuit: screw clamp terminals 2 1...2.5 mm ² - cable stiffness: solid without cable end
Recommended tightening torque	Power circuit: 1.7 N.m - on screw clamp terminals Signalling circuit: 1.7 N.m - on screw clamp terminals
Height	44.5 mm
Width	45 mm
Depth	70 mm
Net weight	0.13 kg

Environment

Standards	EN/IEC 60947-1 EN/IEC 60947-4-1 EN/IEC 60947-5-1 GB/T 14048.1 GB/T 14048.5 GB/T 14048.4 EN/IEC 60335-1:Clause 30.2 EN/IEC 60335-2-40:Annex JJ
Product certifications	CB Scheme CCC CE EAC
Protective treatment	TH conforming to IEC 60068
IP degree of protection	IP20 conforming to IEC 60529
Ambient air temperature for operation	-20...60 °C without derating conforming to IEC 60947-4-1 -20...70 °C with derating
Ambient air temperature for storage	-60...80 °C
Fire resistance	850 °C conforming to IEC 60068-2-1
Dielectric strength	6 kV at 50 Hz conforming to IEC 60255-5
Electromagnetic compatibility	Surge withstand: 6 kV conforming to IEC 60801-5

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.200 cm
Package 1 Width	8.000 cm
Package 1 Length	8.300 cm
Package 1 Weight	149.000 g
Unit Type of Package 2	S02
Number of Units in Package 2	33
Package 2 Height	15.000 cm
Package 2 Width	30.000 cm

Package 2 Length	40.000 cm
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Package 2 Weight	5.290 kg
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Contractual warranty

Warranty (in months)	18
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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	42 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Carbon footprint of the manufacturing phase [A1 to A3]	0.9 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	41 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	0.3 kg CO2 eq.

Use Better



Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
EU RoHS Directive	Compliant
REACH Regulation	Free of Substances of Very High Concern above the threshold

Use Longer



Lifetime extension

Repair	No
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Use Again



Repack and remanufacture

Recyclability potential, in %	53
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

Offer Marketing Illustration

Product benefits / Features

Easy TeSys Thermal Overload Relays

LRE10



Network type

AC

Thermal protection adjustment range

50...60 Hz

Tripping threshold

1.14 +/- 0.06 I_r

Auxiliary contact composition

1 NO + 1 NC

Offer Marketing Illustration

Product benefits / Features

Easy TeSys Thermal Overload Relays

Technical Benefits



Protecting A.C. circuits and motors from overloads, phase failure, long starting times, and prolonged stalled rotor conditions.

Include automatic compensation for ambient temperature variations.

4 width sizes available to cover all ratings; from 45 mm (up to 38A) to 242 mm (up to 630A)

Compensated relays with manual or automatic reset and relay trip indicator

Terminal block for separate mounting

Offer Marketing Illustration

Product benefits / Features



Easy TeSys Thermal Overload Relays

Range Accessories



Contact blocks



Auxiliary contact



Mounting accessories



Manual starter enclosure



Manual starter padlocking

Offer Marketing Illustration

Product benefits / Features

Easy TeSys Thermal Overload Relays



Designed for the essential

Delivers the best balance between performance and budget without any compromise on quality



Power protector

Designed to protect AC circuits and motors against overloads, phase failure, long starting time and prolonged stalled rotor condition



Easy choice and application

Easier to install, order and understand, and operate with multi-standard screws



Technical Illustration

Assembly's dimensions

