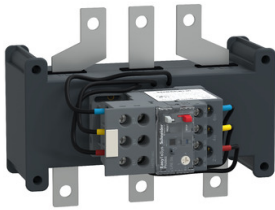


# Product data sheet

Specifications



## Thermal overload relay, Easy TeSys Protect, 51-81A, class 10A

LRE480

### 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

### Complementary

Product compatibility	LC1E120...630
Network type	AC
Network frequency	50...60 Hz
Mounting support	Under contactor Plate
Thermal overload class	Class 10A conforming to IEC 60947-4-1
Signalling function	Relay trip indicator
Thermal protection adjustment range	51...81 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 <sub>th</sub> ] conventional free air thermal current	5 A for signalling circuit
[U <sub>e</sub> ] rated operational voltage	<= 690 V AC
Associated fuse rating	125 A gG for power circuit 100 A aM for power circuit 5 A gG for signalling circuit
[U <sub>i</sub> ] rated insulation voltage	690 V conforming to IEC 60947-4-1
[U <sub>imp</sub> ] 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
Connection pitch	34.8 mm

<b>Connections - terminals</b>	<p>Signalling circuit: screw clamp terminals 2 1...2.5 mm<sup>2</sup> - cable stiffness: flexible without cable end</p> <p>Signalling circuit: screw clamp terminals 2 1...2.5 mm<sup>2</sup> - cable stiffness: flexible with cable end</p> <p>Signalling circuit: screw clamp terminals 2 1...2.5 mm<sup>2</sup> - cable stiffness: solid without cable end</p> <p>Power circuit: bars - busbar cross section: 3 x 18 mm</p> <p>Power circuit: lugs</p>
<b>Recommended tightening torque</b>	<p>Power circuit: 27.5 N.m - on bars M8</p> <p>Power circuit: 27.5 N.m - on lugs M8</p> <p>Signalling circuit: 1.7 N.m - on screw clamp terminals</p>
<b>Height</b>	141 mm
<b>Width</b>	180 mm
<b>Depth</b>	134 mm
<b>Net weight</b>	2.2 kg

## Environment

<b>Standards</b>	<p>EN/IEC 60947-1</p> <p>EN/IEC 60947-4-1</p> <p>EN/IEC 60947-5-1</p> <p>GB/T 14048.1</p> <p>GB/T 14048.5</p> <p>GB/T 14048.4</p> <p>EN/IEC 60335-1:Clause 30.2</p> <p>EN/IEC 60335-2-40:Annex JJ</p>
<b>Product certifications</b>	<p>CB Scheme</p> <p>CCC</p> <p>CE</p> <p>EAC</p>
<b>Protective treatment</b>	TH conforming to IEC 60068
<b>IP degree of protection</b>	IP00 conforming to IEC 60529
<b>Ambient air temperature for operation</b>	<p>-20...60 °C without derating conforming to IEC 60947-4-1</p> <p>-20...70 °C with derating</p>
<b>Ambient air temperature for storage</b>	-60...80 °C
<b>Fire resistance</b>	850 °C conforming to IEC 60068-2-1
<b>Dielectric strength</b>	6 kV at 50 Hz conforming to IEC 60255-5
<b>Electromagnetic compatibility</b>	Surge withstand: 6 kV conforming to IEC 60801-5

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	16.4 cm
<b>Package 1 Width</b>	17.7 cm
<b>Package 1 Length</b>	29.0 cm
<b>Package 1 Weight</b>	1.876 kg
<b>Unit Type of Package 2</b>	S03
<b>Number of Units in Package 2</b>	2
<b>Package 2 Height</b>	30.0 cm
<b>Package 2 Width</b>	30.0 cm
<b>Package 2 Length</b>	40.0 cm
<b>Package 2 Weight</b>	6.488 kg

<b>Unit Type of Package 3</b>	P06
<b>Number of Units in Package 3</b>	8
<b>Package 3 Height</b>	80.0 cm
<b>Package 3 Width</b>	80.0 cm
<b>Package 3 Length</b>	60.0 cm
<b>Package 3 Weight</b>	26.36 kg

## **Contractual warranty**

<b>Warranty (in months)</b>	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	86 kg CO2 eq.
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Carbon footprint of the manufacturing phase [A1 to A3]	17 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.1 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	66 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	3 kg CO2 eq.

### Use Better



### Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
EU RoHS Directive	<a href="#">Compliant</a>
REACH Regulation	<a href="#">Free of Substances of Very High Concern above the threshold</a>

### Use Longer




### Lifetime extension

Repair	No
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### Use Again



### Repack and remanufacture

Recyclability potential, in %	73
End of life manual availability	<a href="#">End of Life Information</a>
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

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## 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



Offer Marketing Illustration

Product benefits / Features

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## 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

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**Easy TeSys**  
Thermal Overload Relays

**LRE10**



Network type  
**AC**

Thermal protection adjustment range  
**50...60 Hz**

Tripping threshold  
**1.14 +/- 0.06 I<sub>r</sub>**

Auxiliary contact composition  
**1 NO + 1 NC**

Offer Marketing Illustration

Product benefits / Features

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Technical Illustration

Assembly's dimensions

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