

# Product datasheet

Specifications



## Electronic overcurrent relay, TeSys LR97D, 48VAC/DC, 20 to 38A, 1C/O

LR97D38E

⚠ Discontinued on: 9 Feb 2023

⚠ Discontinued

### Main

Device short name	LR97
Product or component type	Electronic overcurrent relay
Device application	Protection
Relay application	Sensitivity to phase failure Locked rotor, mechanical jamming $I > 3 \times I_{setting}$ Overload $I_{max} > I_{setting}$
Product compatibility	LC1D25...D38
Network type	AC DC
[Us] rated supply voltage	48 V AC/DC
Thermal protection adjustment range	20...38 A
[Ue] rated operational voltage	600 V AC 50/60 Hz for power circuit conforming to CSA 600 V AC 50/60 Hz for power circuit conforming to UL 690 V AC 50/60 Hz for power circuit conforming to IEC 60947-4-1
Quantity per set	Set of 10

### Complementary

Network frequency	50...60 Hz
Mounting support	Direct on contactor Rail
Tripping threshold	20...34 A
Surge withstand	6 kV conforming to IEC 61000-4-5
Contacts type and composition	1 C/O
[Ith] conventional free air thermal current	3 A for control circuit
Protection type	BS fuse 3 A - for control circuit GB2 circuit breaker 3 A - for control circuit GG fuse 3 A - for control circuit
Maximum power	28 W at 110 V DC conforming to IEC 60947 28 W at 220 V DC conforming to IEC 60947 55 W at 24 V DC conforming to IEC 60947 55 W at 48 V DC conforming to IEC 60947 140 VA at 48 V AC conforming to IEC 60947 360 VA at 110 V AC conforming to IEC 60947 360 VA at 220 V AC conforming to IEC 60947 70 VA at 24 V AC conforming to IEC 60947
[Ui] rated insulation voltage	Power circuit: 600 V conforming to CSA Power circuit: 600 V conforming to UL Power circuit: 690 V conforming to IEC 60947-4-1

<b>[Uimp] rated impulse withstand voltage</b>	6 kV
<b>Phase failure sensitivity</b>	< 3 s
<b>Reset</b>	Automatic reset 120 s fixed Electrical by interruption of power supply for minimum 0.1 s Manual reset
<b>Time range</b>	0.2...10 s - O-time knob 0.3...10 s - O-time knob 0.5...30 s - D-time knob
<b>Signalling function</b>	2 LEDs
<b>Connections - terminals</b>	Control circuit: cable 1 x 1...25 mm <sup>2</sup> flexible with cable end Control circuit: cable 1 x 1...25 mm <sup>2</sup> flexible without cable end Control circuit: cable 2 x 1...25 mm <sup>2</sup> flexible without cable end Control circuit: lug-clamp 1 x 1...25 mm <sup>2</sup> flexible with cable end Control circuit: lug-clamp 1 x 1...25 mm <sup>2</sup> flexible without cable end Control circuit: lug-clamp 2 x 1...25 mm <sup>2</sup> flexible with cable end Control circuit: lug-clamp 2 x 1...25 mm <sup>2</sup> flexible without cable end Control circuit: cable 2 x 1...25 mm <sup>2</sup> Power circuit: cable 1 x 1...6 mm <sup>2</sup> flexible without cable end Power circuit: cable 1 x 2.5...10 mm <sup>2</sup> flexible with cable end Power circuit: lug-clamp 1 x 1...6 mm <sup>2</sup> flexible without cable end Power circuit: lug-clamp 1 x 2.5...10 mm <sup>2</sup> flexible with cable end
<b>Tightening torque</b>	Control circuit: 0.6...1.2 N.m on lug-clamp Power circuit: 2 N.m on cable
<b>Height</b>	67.5 mm
<b>Width</b>	45 mm
<b>Depth</b>	67.5 mm
<b>Net weight</b>	0.172 kg

## Environment

<b>Standards</b>	IEC 60255-6 IEC 60947
<b>Product certifications</b>	GOST UL CSA
<b>Protective treatment</b>	TH conforming to IEC 60068
<b>IP degree of protection</b>	IP20 conforming to IEC 60529
<b>Ambient air temperature for operation</b>	-25...60 °C conforming to IEC 60947-4-1
<b>Ambient air temperature for storage</b>	-30...80 °C
<b>Operating altitude</b>	2000 m
<b>Fire resistance</b>	850 °C conforming to IEC 60695-2-1
<b>Shock resistance</b>	15 gn 11 ms conforming to IEC 60068-2-7
<b>Vibration resistance</b>	4 gn conforming to IEC 60068-2-6
<b>Dielectric strength</b>	2 V 50 Hz conforming to IEC 60255-5
<b>Resistance to electrostatic discharge</b>	6 kV in indirect mode 8 kV in air
<b>Resistance to radiated fields</b>	10 V/m level 3
<b>Resistance to fast transients</b>	2 kV
<b>Disturbance radiated/conducted</b>	10 V conforming to EN 61000-4-6 Class A conforming to EN 55011

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	5.500 cm
<b>Package 1 Width</b>	7.200 cm
<b>Package 1 Length</b>	7.700 cm
<b>Package 1 Weight</b>	179.000 g
<b>Unit Type of Package 2</b>	S02
<b>Number of Units in Package 2</b>	24
<b>Package 2 Height</b>	15.000 cm
<b>Package 2 Width</b>	30.000 cm
<b>Package 2 Length</b>	40.000 cm
<b>Package 2 Weight</b>	4.556 kg
<b>Unit Type of Package 3</b>	P06
<b>Number of Units in Package 3</b>	384
<b>Package 3 Height</b>	75.000 cm
<b>Package 3 Width</b>	80.000 cm
<b>Package 3 Length</b>	60.000 cm
<b>Package 3 Weight</b>	80.896 kg

## Contractual warranty

<b>Warranty (in months)</b>	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	59 kg CO2 eq.
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Carbon footprint of the manufacturing phase [A1 to A3]	4 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.2 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	55 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	No
SCIP Number	99e36f9f-1e4f-4e3a-a849-bdda6ef53eb9
EU RoHS Directive	<a href="#">Compliant By Exemption</a>
REACH Regulation	<a href="#">Reference contains Substances of Very High Concern above the threshold</a>

## Use Longer



### Lifetime extension

Repair	No
--------	----

## Use Again



### Repack and remanufacture

Recyclability potential, in %	31
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