

Product data sheet

Characteristics

LR97D38E

electronic overload relay for motor TeSys -
20...38 A - 48 V AC/DC



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 $I > 3 \times I_{\text{setting}}$ Overload $I_{\text{max}} > I_{\text{setting}}$
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
[Uimp] rated impulse withstand voltage	6 kV
Phase failure sensitivity	< 3 s
Reset	Automatic reset 120 s fixed Electrical by interruption of power supply for minimum 0.1 s Manual reset
Time range	0.2...10 s - O-time knob 0.3...10 s - O-time knob 0.5...30 s - D-time knob
Signalling function	2 LEDs

Connections - terminals	Control circuit: cable 1 x 1...25 mm ² flexible with cable end Control circuit: cable 1 x 1...25 mm ² flexible without cable end Control circuit: cable 2 x 1...25 mm ² flexible without cable end Control circuit: lug-clamp 1 x 1...25 mm ² flexible with cable end Control circuit: lug-clamp 1 x 1...25 mm ² flexible without cable end Control circuit: lug-clamp 2 x 1...25 mm ² flexible with cable end Control circuit: lug-clamp 2 x 1...25 mm ² flexible without cable end Control circuit: cable 2 x 1...25 mm ² Power circuit: cable 1 x 1...6 mm ² flexible without cable end Power circuit: cable 1 x 2.5...10 mm ² flexible with cable end Power circuit: lug-clamp 1 x 1...6 mm ² flexible without cable end Power circuit: lug-clamp 1 x 2.5...10 mm ² flexible with cable end
Tightening torque	Control circuit: 0.6...1.2 N.m on lug-clamp Power circuit: 2 N.m on cable
Height	67.5 mm
Width	45 mm
Depth	67.5 mm
Net weight	0.172 kg

Environment

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

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.0 cm
Package 1 Width	6.9 cm
Package 1 Length	7.6 cm
Package 1 Weight	179.0 g
Unit Type of Package 2	S02
Number of Units in Package 2	24
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	4.751 kg
Unit Type of Package 3	P06
Number of Units in Package 3	384
Package 3 Height	75 cm
Package 3 Width	40 cm
Package 3 Length	80 cm
Package 3 Weight	93.736 kg

Offer Sustainability

REACH Regulation	 REACH Declaration
EU RoHS Directive	Compliant with Exemptions
Mercury free	Yes
China RoHS Regulation	 China RoHS Declaration
RoHS exemption information	 Yes
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Contractual warranty

Warranty	18 months
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