

Product datasheet

Specifications



CONTACTOR 600VAC 50AMP IEC +OPTIONS

LC1D50GD

⚠ Discontinued on: 9 Sept 2020

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Main

Range	TeSys
Range of product	TeSys D
Product or component type	Contacteur
Device short name	LC1D
Contacteur application	Resistive load Resistive load
Utilisation category	AC-1 AC-4 AC-2 AC-3
Poles description	3P
[Ue] rated operational voltage	Power circuit: <= 690 V AC 25...400 Hz
[Ie] rated operational current	80 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 50 A (at <60 °C) AC AC-3 for power circuit 80 A (at <60 °C) AC AC-1 for power circuit
[Uc] control circuit voltage	120 V AC 50 Hz

Complementary

Motor power kW	25 kW at 415 V AC 50 Hz 30 kW at 440 V AC 50 Hz 30 kW at 500 V AC 50 Hz 33 kW at 660...690 V AC 50 Hz 15 kW at 220...230 V AC 50 Hz 30 kW at 1000 V AC 50 Hz 22 kW at 380...400 V AC 50 Hz
Motor power hp	7.5 hp at 230/240 V AC 60 Hz for 1 phase motors 15 hp at 200/208 V AC 60 Hz for 3 phases motors 15 hp at 230/240 V AC 60 Hz for 3 phases motors 40 hp at 460/480 V AC 60 Hz for 3 phases motors 40 hp at 575/600 V AC 60 Hz for 3 phases motors 3 hp at 115 V AC 60 Hz for 1 phase motors
Compatibility code	LC1D
Pole contact composition	3 NO
Protective cover	With
[Ith] conventional free air thermal current	80 A (at 60 °C) for power circuit 10 A (at 60 °C) for control circuit
Irms rated making capacity	900 A at 440 V for power circuit conforming to IEC 60947 140 A AC for control circuit conforming to IEC 60947-5-1
Rated breaking capacity	900 kA at 440 V for power circuit conforming to IEC 60947

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

[Icw] rated short-time withstand current	810 A 40 °C - 1 s for power circuit 400 A 40 °C - 10 s for power circuit
Associated fuse rating	100 A gG at ≤ 690 V coordination type 1 for power circuit 100 A gG at ≤ 690 V coordination type 2 for power circuit conforming to IEC 60947-5-1 10 A gG for control circuit conforming to IEC 60947-5-1
Average impedance	1.5 Ohm - Ith 80 A 50 Hz for power circuit
Power dissipation per pole	9.6 W AC-1 3.7 W AC-3
[Ui] rated insulation voltage	Control circuit: 600 V UL certified Power circuit: 600 V CSA certified Power circuit: 600 V UL certified conforming to IEC 60947-1 Control circuit: 690 V conforming to IEC 60947-1 Power circuit: 690 V CSA certified conforming to IEC 60947-1 Control circuit: 600 V CSA certified
Overvoltage category	III
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947
Safety reliability level	B10d = 2000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1
Mechanical durability	6000000 cycles
Control circuit type	AC at 50 Hz
Coil technology	Without built-in
Control circuit voltage limits	0.75...1.25 Uc (-40...60 °C):operational DC 1...1.25 Uc (60...70 °C):operational DC 50 Hz 0.8...1.1 Uc (-40...55 °C):operational AC 50 Hz 0.3...0.6 Uc (-40...70 °C):drop-out AC 50 Hz
Inrush power in VA	140 VA cos phi 0.75 (at 20 °C) 160 VA cos phi 0.75 (at 20 °C)
Hold-in power consumption in VA	13 VA 60 Hz cos phi 0.3 (at 20 °C) 15 VA 50 Hz cos phi 0.3 (at 20 °C)
Rated operational power in W	38 W at 125 V DC-13 - electrical durability: 3000000 cycles - for control circuit 76 W at 125 V DC-13 - electrical durability: 1000000 cycles - for control circuit
Heat dissipation	4...5 W at 50/60 Hz for control circuit
Operating time	50 ms closing 12...26 ms closing 4...19 ms opening
Maximum operating rate	3600 cyc/mn 60 °C
Connections - terminals	Control circuit: screw clamp terminals 2 1...4 mm² - cable stiffness: rigid without cable end Control circuit: screw clamp terminals 1 1...4 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 1...4 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 1...2.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 1...2.5 mm² - cable stiffness: flexible with cable end Power circuit: screw terminals 1 2.5...25 mm² - cable stiffness: rigid Power circuit: screw terminals 2 2.5...16 mm² - cable stiffness: rigid without cable end Power circuit: screw terminals 1 2.5...25 mm² - cable stiffness: flexible without cable end Power circuit: screw terminals 2 2.5...16 mm² - cable stiffness: flexible without cable end Power circuit: screw terminals 1 2.5...25 mm² - cable stiffness: flexible with cable end Power circuit: screw terminals 2 2.5...10 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 1...4 mm² - cable stiffness: rigid Control circuit: screw clamp terminals 1 1...4 mm² - cable stiffness: rigid

Tightening torque	Control circuit: 1.7 N.m - on screw clamp terminal - with screwdriver Philips No 2 Power circuit: 5 N.m - on screw terminal - with screwdriver flat Ø 6 to Ø 8 mm Control circuit: 1.7 N.m - on screw clamp terminal - with screwdriver pozidriv No 2 Control circuit: 1.7 N.m - on screw clamp terminal - with screwdriver flat Ø 6 mm
Auxiliary contact composition	1 NO + 1 NC
Auxiliary contacts type	type mirror contact 1 NC conforming to IEC 60947-4-1 type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1
Minimum switching voltage	17 V for control circuit
Minimum switching current	5 mA for control circuit
Insulation resistance	> 10 MOhm for control circuit
Non-overlap time	1.5 ms on energisation between NC and NO contacts 1.5 ms on de-energisation between NC and NO contacts
Mounting support	Plate Plate

Environment

Standards	CSA C22.2 No 14 UL 508 EN 60947-5-1 EN 60947-4-1 IEC 60947-4-1
Product certifications	CCC BV GL GOST LROS (Lloyds register of shipping) UL RINA DNV GL
IP degree of protection	IP2X conforming to VDE 0106 IP2X conforming to IEC 60529
Protective treatment	TH (pollution degree 3) conforming to IEC 60068-2-30
Climatic withstand	conforming to IACS E10 exposure to damp heat
Permissible ambient air temperature around the device	-60...80 °C storage -40...60 °C operation 60...70 °C with derating
Operating altitude	0...3000 m
Fire resistance	850 °C conforming to IEC 60695-2-1
Flame retardance	V1 conforming to UL 94
Mechanical robustness	Shocks contactor closed (15 gn) Vibrations contactor opened (2 Gn, 5...300 Hz) Vibrations contactor closed (4 Gn, 5...300 Hz) Shocks contactor opened (10 Gn)
Height	122 mm
Width	70 mm
Depth	118 mm
Net weight	2.185 kg
Quantity per set	Set of 1

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1

Contractual warranty

Warranty (in months)	18
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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	
Environmental Disclosure	Product Environmental Profile
Use Better	
Materials and Packaging	
EU RoHS Directive	Compliant
PVC free	Yes
Use Longer	
Lifetime extension	
Repair	No
Use Again	
Repack and remanufacture	
End of life manual availability	End of Life Information
WEEE Label	 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins