

Product data sheet

Specifications



Contactor, Tesys Deca,
3P(3NO),AC-3/AC-3e/<=440V 50A,
480V AC 60Hz coil, screw clamp
terminals

LC1D50T6

Main

Range	TeSys
Range of product	TeSys Deca
Product or component type	Contactor
Device short name	LC1D
Contactor application	Motor control Resistive load
Utilisation category	AC-1 AC-2 AC-4 AC-3 AC-3e
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) at <= 440 V AC AC-3 for power circuit 50 A (at <60 °C) at <= 440 V AC AC-3e for power circuit
[Uc] control circuit voltage	480 V AC 60 Hz

Complementary

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

Rated breaking capacity	900 A at 440 V for power circuit conforming to IEC 60947
Associated fuse rating	10 A gG for control circuit conforming to IEC 60947-5-1 100 A gG at ≤ 690 V coordination type 1 for power circuit 100 A gG at ≤ 690 V coordination type 2 for power circuit
Average impedance	1.5 mOhm - lth 80 A 50 Hz for power circuit
Power dissipation per pole	3.7 W AC-3 9.6 W AC-1 3.7 W AC-3e
[Ui] rated insulation voltage	Control circuit: 600 V CSA certified Control circuit: 600 V UL certified Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Control circuit: 690 V conforming to IEC 60947-1 Power circuit: 690 V conforming to IEC 60947-1
Overvoltage category	III
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947
Safety reliability level	B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1
Mechanical durability	6000000 cycles
Control circuit type	AC at 60 Hz
Coil technology	Without built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.85...1.1 Uc (60 °C):operational AC 60 Hz 0.3...0.6 Uc (60 °C):drop-out AC 60 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 50 Hz cos phi 0.3 (at 20 °C) 15 VA 60 Hz cos phi 0.3 (at 20 °C)
Heat dissipation	4...5 W at 50/60 Hz for control circuit
Operating time	12...26 ms closing 4...19 ms opening
Maximum operating rate	3600 cyc/h at 60 °C
Connections - terminals	Control circuit: screw clamp terminals 1 1...4 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 1...4 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 1 1...2.5 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 1...2.5 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 1...4 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 1...4 mm² - cable stiffness: flexible with cable end Power circuit: connector 1 2.5...35 mm² - cable stiffness: solid with cable end Power circuit: connector 2 2.5...35 mm² - cable stiffness: solid with cable end Power circuit: connector 1 2.5...35 mm² - cable stiffness: flexible without cable end Power circuit: connector 2 2.5...25 mm² - cable stiffness: flexible without cable end Power circuit: connector 1 2.5...35 mm² - cable stiffness: flexible with cable end Power circuit: connector 2 2.5...35 mm² - cable stiffness: flexible with cable end
Tightening torque	Control circuit: 1.2 N.m - on screw clamp terminal - with screwdriver flat Ø 6 mm Control circuit: 1.2 N.m - on screw clamp terminal - with screwdriver Philips No 2 Power circuit: 5 N.m - on screw clamp terminal - with screwdriver flat Ø 6 mm Power circuit: 5 N.m - on screw clamp terminal - with screwdriver flat Ø 8 mm Control circuit: 1.2 N.m - on screw clamp terminal - with screwdriver pozidriv No 2
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 de-energisation between NC and NO contacts 1.5 ms on energisation between NC and NO contacts
Mounting support	Rail Plate

Environment

Standards	EN 60947-4-1 CSA C22.2 No 14 IEC 60947-5-1 EN 60947-5-1 UL 60947-4-1 IEC 60947-4-1
Product certifications	RINA CCC CSA GL GOST BV DNV UL LROS (pending) UKCA
IP degree of protection	IP2X conforming to IEC 60529 IP2X conforming to VDE 0106
Climatic withstand	conforming to IACS E10 exposure to damp heat
Permissible ambient air temperature around the device	-5...60 °C -40...70 °C at U _c
Operating altitude	3000 m without derating
Fire resistance	850 °C conforming to IEC 60695-2-1
Flame retardance	V1 conforming to UL 94
Mechanical robustness	Shocks contactor opened (10 Gn for 11 ms) Shocks contactor closed (15 Gn for 11 ms) Vibrations contactor opened (2 Gn, 5...300 Hz) Vibrations contactor closed (4 Gn, 5...300 Hz)
Height	122 mm
Width	55 mm
Depth	119 mm
Net weight	1.4 kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	13.000 cm
Package 1 Width	9.000 cm
Package 1 Length	13.000 cm
Package 1 Weight	1.400 kg
Unit Type of Package 2	S03
Number of Units in Package 2	18
Package 2 Height	30.000 cm

Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	25.620 kg
Unit Type of Package 3	P06
Number of Units in Package 3	144
Package 3 Height	75.000 cm
Package 3 Width	60.000 cm
Package 3 Length	80.000 cm
Package 3 Weight	212.960 kg

Contractual warranty

Warranty	18 months
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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	74

Use Better

Materials and Substances	
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
EU RoHS Directive	Compliant
REACH Regulation	REACH Declaration
California proposition 65	WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov
PVC free	Yes

Use Again

Repack and remanufacture	
End of life manual availability	No need of specific recycling operations
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

Technical Illustration

Assembly's dimensions

