

Product data sheet

Specifications



Contactor, TeSys Deca, 3P(3 NO), AC-3/AC-3e, <=400V, 50A, 24V AC 50/60Hz coil, lugs-ring terminals

LC1D50A6B7

Main

Range	TeSys TeSys Deca
Range of product	TeSys Deca
Product or component type	Contactor
Device short name	LC1D
contactor application	Resistive load Motor control
Utilisation category	AC-4 AC-1 AC-3 AC-3e
poles description	3P
[Ue] rated operational voltage	Power circuit <= 690 V AC 25...400 Hz Power circuit <= 300 V DC
[Ie] rated operational current	50 A (at <140.0000000000 °F (60 °C)) at <= 440 V AC AC-3 for power circuit 80 A (at <140.0000000000 °F (60 °C)) at <= 440 V AC AC-1 for power circuit 50 A (at <140.0000000000 °F (60 °C)) at <= 440 V AC AC-3e for power circuit
[Uc] control circuit voltage	24 V AC 50/60 Hz

Complementary

Motor power kW	15 kW at 220...230 V AC 50/60 Hz (AC-3) 22 kW at 380...400 V AC 50/60 Hz (AC-3) 30 kW at 500 V AC 50/60 Hz (AC-3) 33 kW at 660...690 V AC 50/60 Hz (AC-3) 25 kW at 415 V AC 50/60 Hz (AC-3) 30 kW at 440 V AC 50/60 Hz (AC-3) 11 kW at 400 V AC 50/60 Hz (AC-4) 15 kW at 220...230 V AC 50/60 Hz (AC-3e) 22 kW at 380...400 V AC 50/60 Hz (AC-3e) 30 kW at 500 V AC 50/60 Hz (AC-3e) 33 kW at 660...690 V AC 50/60 Hz (AC-3e) 25 kW at 415 V AC 50/60 Hz (AC-3e) 30 kW at 440 V AC 50/60 Hz (AC-3e)
Motor power hp	3 hp at 115 V AC 50/60 Hz for 1 phase motors 7.5 hp at 230/240 V AC 50/60 Hz for 1 phase motors 15 hp at 200/208 V AC 50/60 Hz for 3 phases motors 15 hp at 230/240 V AC 50/60 Hz for 3 phases motors 40 hp at 460/480 V AC 50/60 Hz for 3 phases motors 40 hp at 575/600 V AC 50/60 Hz for 3 phases motors
Compatibility code	LC1D
Pole contact composition	3 NO
Protective cover	With
[Ith] conventional free air thermal current	10 A (at 140.0000000000 °F (60 °C)) for signalling circuit 80 A (at 140.0000000000 °F (60 °C)) for power circuit

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

Irms rated making capacity	140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1 900 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	900 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	400 A 104.0000000000 °F (40 °C) - 10 s for power circuit 810 A 104.0000000000 °F (40 °C) - 1 s for power circuit 84 A 104.0000000000 °F (40 °C) - 10 min for power circuit 208 A 104.0000000000 °F (40 °C) - 1 min for power circuit 100 A - 1 s for signalling circuit 120 A - 500 ms for signalling circuit 140 A - 100 ms for signalling circuit
Associated fuse rating	10 A gG for signalling 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	Power circuit 600 V CSA Power circuit 600 V UL Signalling circuit 690 V IEC 60947-1 Signalling circuit 600 V CSA Signalling circuit 600 V UL Power circuit 690 V IEC 60947-4-1
Overvoltage category	III
Pollution degree	3
[Uimp] rated impulse withstand voltage	6 kV IEC 60947
Safety reliability level	B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1 B10d = 2000000 cycles contactor with mechanical load EN/ISO 13849-1
Mechanical durability	6 Mcycles
Electrical durability	1.45 Mcycles 50 A AC-3 <= 440 V 1.1 Mcycles 80 A AC-1 <= 440 V 1.45 Mcycles 50 A AC-3e <= 440 V
Control circuit type	AC 50/60 Hz
Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.3...0.6 Uc -40.0000000000...158.0000000000 °F (-40...70 °C) drop-out AC 50/60 Hz 0.8...1.1 Uc -40.0000000000...140.0000000000 °F (-40...60 °C) operational AC 50 Hz 0.85...1.1 Uc -40.0000000000...140.0000000000 °F (-40...60 °C) operational AC 60 Hz 1...1.1 Uc 140.0000000000...158.0000000000 °F (60...70 °C) operational AC 50/60 Hz
Inrush power in VA	140 VA 60 Hz cos phi 0.75 (at 68.0000000000 °F (20 °C)) 160 VA 50 Hz cos phi 0.75 (at 68.0000000000 °F (20 °C))
Hold-in power consumption in VA	13 VA 60 Hz cos phi 0.3 (at 68.0000000000 °F (20 °C)) 15 VA 50 Hz cos phi 0.3 (at 68.0000000000 °F (20 °C))
Heat dissipation	4...5 W at 50/60 Hz
Operating time	4...19 ms opening 12...26 ms closing
Maximum operating rate	3600 cyc/h 140.0000000000 °F (60 °C)
Maximum operating rate	3600 cyc/h at 60 °C
Connections - terminals	Control circuit: lugs-ring terminals - external diameter: 0.3 in (8 mm) Power circuit: lugs-ring terminals - external diameter: 0.6 in (16.5 mm)

Tightening torque	Control circuit 15.05 lbf.in (1.7 N.m) lugs-ring terminals flat Ø 6 mm M3.5 Control circuit 15.05 lbf.in (1.7 N.m) lugs-ring terminals Philips No 2 M3.5 Power circuit 53.1 lbf.in (6 N.m) lugs-ring terminals hexagonal 0.4 in (10 mm) M6 Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2 Power circuit 22.1 lbf.in (2.5 N.m) screw clamp terminals pozidriv No 2
Auxiliary contact composition	1 NO + 1 NC
Auxiliary contacts type	Mechanically linked 1 NO + 1 NC IEC 60947-5-1 Mirror contact 1 NC IEC 60947-4-1
Signalling circuit frequency	25...400 Hz
Minimum switching voltage	17 V for signalling circuit
Minimum switching current	5 mA for signalling circuit
Insulation resistance	> 10 MOhm for signalling circuit
Non-overlap time	1.5 ms on de-energisation between NC and NO contact 1.5 ms on energisation between NC and NO contact
Mounting support	Rail Plate

Environment

Standards	EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 CSA C22.2 No 14 UL 60947-4-1 IEC 60335-2-40:Annex JJ UL 60335-2-40:Annex JJ IEC 60335-1:Clause 30.2
Product certifications	CCC UL CB Scheme CSA CE UKCA Marine EAC
IP degree of protection	IP20 front face IEC 60529
Protective treatment	THIEC 60068-2-30
Climatic withstand	IACS E10 exposure to damp heat IEC 60947-1 Annex Q category D exposure to damp heat
Permissible ambient air temperature around the device	-40.0000000000...140.0000000000 °F (-40...60 °C) 140.0000000000...158.0000000000 °F (60...70 °C) with derating
Operating altitude	0...3000 m
Fire resistance	1562.0000000000 °F (850 °C) IEC 60695-2-1
Flame retardance	V1 UL 94
Mechanical robustness	Vibrations contactor open 2 Gn, 5...300 Hz) Vibrations contactor closed 4 Gn, 5...300 Hz) Shocks contactor closed 15 Gn for 11 ms) Shocks contactor open 10 Gn for 11 ms)
Height	4.8 in (122 mm)
Width	2.2 in (55 mm)
Depth	4.7 in (120 mm)
Net weight	1.885 lb(US) (0.855 kg)

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	2.50 in (6.35 cm)
Package 1 Width	5.400 in (13.716 cm)
Package 1 Length	5.900 in (14.986 cm)
Package 1 Weight	29.76 oz (843.69 g)

Contractual warranty

Warranty	18 months
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Sustainability

Green Premium™ label is Schneider Electric’s commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO₂ products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

[Guide to assess a product’s sustainability >](#)



Sustainable Packaging Transparency RoHS/REACH

Resource performance

✓

Sustainable Packaging

Well-being performance

✓

Reach Free Of Svhc

✓

Toxic Heavy Metal Free

✓

Mercury Free

✓

Rohs Exemption Information

Yes

✓

Pvc Free

Certifications & Standards

Reach Regulation	REACH Declaration
Eu Rohs Directive	Compliant EU RoHS Declaration
China Rohs Regulation	China RoHS declaration Pro-active China RoHS declaration (out of China RoHS legal scope)
Environmental Disclosure	Product Environmental Profile
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
Circularity Profile	End of Life Information

