

Product datasheet

Specifications



Contactor, TeSys D, TeSys Deca, 3P(3 NO), AC-3/AC-3e, 0 to 440V, 38A, 24VDC standard coil

LC1D38BD

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 <60 °C) at <= 440 V AC AC-1 for power circuit 38 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 38 A (at <60 °C) at <= 440 V AC AC-3e for power circuit
[Uc] control circuit voltage	24 V DC

Complementary

Motor power kW	18.5 kW at 500 V AC 50/60 Hz (AC-3) 18.5 kW at 660...690 V AC 50/60 Hz (AC-3) 7.5 kW at 400 V AC 50/60 Hz (AC-4) 18.5 kW at 380...400 V AC 50/60 Hz (AC-3) 9 kW at 220...230 V AC 50/60 Hz (AC-3) 18.5 kW at 415...440 V AC 50/60 Hz (AC-3) 18.5 kW at 500 V AC 50/60 Hz (AC-3e) 18.5 kW at 660...690 V AC 50/60 Hz (AC-3e) 18.5 kW at 380...400 V AC 50/60 Hz (AC-3e) 9 kW at 220...230 V AC 50/60 Hz (AC-3e) 18.5 kW at 415...440 V AC 50/60 Hz (AC-3e)
Motor power hp	10 hp at 230/240 V AC 50/60 Hz for 3 phases motors 10 hp at 200/208 V AC 50/60 Hz for 3 phases motors 5 hp at 240 V AC 50/60 Hz for 1 phase motors 20 hp at 480 V AC 50/60 Hz for 3 phases motors 25 hp at 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 60 °C) for signalling circuit 50 A (at 60 °C) for power circuit
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 60947-5-1 550 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	550 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	60 A 40 °C - 10 min for power circuit 430 A 40 °C - 1 s for power circuit 150 A 40 °C - 1 min for power circuit 310 A 40 °C - 10 s 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 63 A gG at <= 690 V coordination type 1 for power circuit 63 A gG at <= 690 V coordination type 2 for power circuit
Average impedance	2 mOhm - lth 50 A 50 Hz for power circuit
Power dissipation per pole	5 W AC-1 3 W AC-3 3 W AC-3e
[Ui] rated insulation voltage	Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Signalling circuit: 690 V conforming to IEC 60947-1 Signalling circuit: 600 V CSA certified Signalling circuit: 600 V UL certified Power circuit: 690 V conforming to IEC 60947-4-1
Overvoltage category	III
Pollution degree	3
[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	30 Mcycles
Electrical durability	1.4 Mcycles 50 A AC-1 at Ue <= 440 V 1.4 Mcycles 38 A AC-3 at Ue <= 440 V 1.4 Mcycles 38 A AC-3e at Ue <= 440 V
Control circuit type	DC standard
Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.1...0.25 Uc (-40...70 °C):drop-out DC 0.7...1.25 Uc (-40...60 °C):operational DC 1...1.25 Uc (60...70 °C):operational DC
Inrush power in W	5.4 W (at 20 °C)
Hold-in power consumption in W	5.4 W at 20 °C
Operating time	20 ±20 % ms opening 63 ±15 % ms closing
Time constant	28 ms
Maximum operating rate	3600 cyc/h 60 °C
Maximum operating rate	3600 cyc/h at 60 °C

Connections - terminals	Control circuit: screw clamp terminals 2 1...2.5 mm² - cable stiffness: flexible with 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...4 mm² - cable stiffness: flexible with cable end 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 Power circuit: screw clamp terminals 1 2.5...10 mm² - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 2 2.5...10 mm² - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 1 1...10 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 1.5...6 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 1.5...10 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 2.5...10 mm² - cable stiffness: solid without cable end
Tightening torque	Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2 Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver Philips No 2 Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2 Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver pozidriv No 2
Auxiliary contact composition	1 NO + 1 NC
Auxiliary contacts type	type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1 type mirror contact 1 NC conforming to 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	Plate Rail

Environment

Standards	CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 60947-4-1 IEC 60335-1:Clause 30.2 IEC 60335-2-40:Annex JJ UL 60335-2-40:Annex JJ CSA C22.2 No 60947-4-1
product certifications	UL CCC CSA Marine UKCA EAC CB Scheme
IP degree of protection	IP20 front face conforming to IEC 60529
Protective treatment	TH conforming to IEC 60068-2-30
Climatic withstand	conforming to IACS E10 exposure to damp heat conforming to IEC 60947-1 Annex Q category D exposure to damp heat

Permissible ambient air temperature around the device	-40...60 °C 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	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 (8 Gn for 11 ms)
Height	85 mm
Width	45 mm
Depth	101 mm
Net weight	0.54 kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.000 cm
Package 1 Width	9.000 cm
Package 1 Length	11.000 cm
Package 1 Weight	590.000 g
Unit Type of Package 2	S02
Number of Units in Package 2	15
Package 2 Height	15.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	8.959 kg
Unit Type of Package 3	P06
Number of Units in Package 3	240
Package 3 Height	75.000 cm
Package 3 Width	60.000 cm
Package 3 Length	80.000 cm
Package 3 Weight	153.296 kg

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

 Mercury Free

 Rohs Exemption Information [Yes](#)

 Pvc Free

Certifications & Standards

Reach Regulation [REACH Declaration](#)

Eu Rohs Directive Compliant with Exemptions

China Rohs Regulation [China RoHS declaration](#)
Product out of China RoHS scope. Substance declaration for your information

Environmental Disclosure [Product Environmental Profile](#)

Circularity Profile [End of Life Information](#)