

Product data sheet

Specifications



TeSys Deca reversing contactor - 3P(3 NO) - AC-3 - <= 440 V 25 A - 48 V DC coil

LC2D25EL

⚠ **Discontinued on:** May 12, 2023

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Main

Range	TeSys
Product name	TeSys Deca
Product or component type	Reversing contactor
Device short name	LC2D
Contactor application	Motor control Resistive load
Utilisation category	AC-1 AC-3
Device presentation	Preassembled with reversing power busbar
Poles description	3P
power pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit <= 690 V AC 25...400 Hz Power circuit <= 300 V DC
[Ie] rated operational current	25 A (at <140 °F (60 °C)) at <= 440 V AC AC-3 for power circuit 40 A (at <140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit
Motor power kW	5.5 kW at 220...230 V AC 50 Hz 11 kW at 380...400 V AC 50 Hz 11 kW at 415...440 V AC 50 Hz 15 kW at 500 V AC 50 Hz 15 kW at 660...690 V AC 50 Hz
Motor power hp	3 hp at 230/240 V AC 60 Hz for 1 phase motors 5 hp at 200/208 V AC 60 Hz for 3 phases motors 2 hp at 115 V AC 60 Hz for 1 phase motors 7.5 hp at 230/240 V AC 60 Hz for 3 phases motors 15 hp at 460/480 V AC 60 Hz for 3 phases motors 20 hp at 575/600 V AC 60 Hz for 3 phases motors
Control circuit type	DC low consumption
[Uc] control circuit voltage	48 V DC
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	6 kV IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	10 A (at 140 °F (60 °C)) for signalling circuit 40 A (at 140 °F (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 60947-5-1 450 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	450 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

[Icw] rated short-time withstand current	50 A 104 °F (40 °C) - 10 min for power circuit 120 A 104 °F (40 °C) - 1 min for power circuit 240 A 104 °F (40 °C) - 10 s for power circuit 380 A 104 °F (40 °C) - 1 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 40 A gG at <= 690 V coordination type 2 for power circuit
Average impedance	2 mOhm - lth 40 A 50 Hz for power circuit
[Ui] rated insulation voltage	Power circuit 690 V IEC 60947-4-1 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
Electrical durability	1.65 Mcycles 25 A AC-3 <= 440 V 1.4 Mcycles 40 A AC-1 <= 440 V
Power dissipation per pole	1.25 W AC-3 3.2 W AC-1
Front cover	With
Interlocking type	Mechanical
Mounting support	Rail Plate
Standards	CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508
Product certifications	RINA CSA CCC UL LROS (Lloyds register of shipping) DNV GL GOST BV
Connections - terminals	Control circuit screw clamp terminals 1 0.002...0.006 in ² (1...4 mm ²)flexible without cable end Control circuit screw clamp terminals 2 0.002...0.006 in ² (1...4 mm ²)flexible without cable end Control circuit screw clamp terminals 1 0.002...0.006 in ² (1...4 mm ²)flexible with cable end Control circuit screw clamp terminals 2 0.002...0.004 in ² (1...2.5 mm ²)flexible with cable end Control circuit screw clamp terminals 1 0.002...0.006 in ² (1...4 mm ²)solid Control circuit screw clamp terminals 2 0.002...0.006 in ² (1...4 mm ²)solid Power circuit screw clamp terminals 1 0.004...0.02 in ² (2.5...10 mm ²)flexible without cable end Power circuit screw clamp terminals 2 0.004...0.02 in ² (2.5...10 mm ²)flexible without cable end Power circuit screw clamp terminals 1 0.002...0.02 in ² (1...10 mm ²)flexible with cable end Power circuit screw clamp terminals 2 0.002...0.009 in ² (1.5...6 mm ²)flexible with cable end Power circuit screw clamp terminals 1 0.002...0.02 in ² (1.5...10 mm ²)solid Power circuit screw clamp terminals 2 0.004...0.02 in ² (2.5...10 mm ²)solid
Tightening torque	Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2 Power circuit 22.1 lbf.in (2.5 N.m) screw clamp terminals flat Ø 6 mm Power circuit 22.1 lbf.in (2.5 N.m) screw clamp terminals Philips No 2
Operating time	65.45...88.55 ms closing 20...30 ms opening

Safety reliability level	B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1
Mechanical durability	30 Mcycles
Maximum operating rate	3600 cyc/h 140 °F (60 °C)

Complementary

Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.1...0.3 Uc (-40...158 °F (-40...70 °C)):drop-out DC 0.8...1.25 Uc (-40...140 °F (-40...60 °C)):operational DC 1...1.25 Uc (140...158 °F (60...70 °C)):operational DC
Time constant	40 ms
Inrush power in W	2.4 W 68 °F (20 °C))
Hold-in power consumption in W	2.4 W 68 °F (20 °C)
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 current	5 mA for signalling circuit
Minimum switching voltage	17 V 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
Insulation resistance	> 10 MOhm for signalling circuit

Environment

IP degree of protection	IP20 front face IEC 60529
Climatic withstand	IACS E10 IEC 60947-1 Annex Q category D
Protective treatment	TH IEC 60068-2-30
Pollution degree	3
Ambient air temperature for operation	-40...140 °F (-40...60 °C) 140...158 °F (60...70 °C) with derating
Ambient air temperature for storage	-76...176 °F (-60...80 °C)
Operating altitude	0...3000 m
Fire resistance	1562 °F (850 °C) IEC 60695-2-1
Flame retardance	V1 UL 94
Mechanical robustness	Vibrations contactor open2 Gn, 5...300 Hz Vibrations contactor closed4 Gn, 5...300 Hz Shocks contactor closed15 Gn for 11 ms Shocks contactor open8 Gn for 11 ms
Height	3.3 in (85 mm)
Width	3.5 in (90 mm)
Depth	4.0 in (101 mm)
Net weight	2.463 lb(US) (1.117 kg)

Packing Units

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

Package 1 Height	4.3 in (10.9 cm)
Package 1 Width	4.5 in (11.4 cm)
Package 1 Length	4.6 in (11.8 cm)
Package 1 Weight	2.58 lb(US) (1.17 kg)

Contractual warranty

Warranty (in months)	18
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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 >](#)

Use Better

Materials and Substances	
EU RoHS Directive	Compliant
PVC free	Yes

Use Longer

Lifetime extension	
Repair	No

Use Again

Repack and remanufacture	
Circularity Profile	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

Technical Illustration

Dimensions

