

Product data sheet

Specifications



IEC contactor, TeSys Deca, nonreversing, 25A, 15HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, 24VAC 50/60Hz coil, open

LC1D25B7

Product availability: Stock - Normally stocked in distribution facility

Main

Range of Product	TeSys Deca
Product or Component Type	Contactors
Device short name	LC1D
Contactors application	Resistive load Motor control
Utilisation category	AC-1 AC-3 AC-4 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	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 25 A (at <140 °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	5.5 kW at 220...230 V AC 50/60 Hz (AC-3) 11 kW at 380...400 V AC 50/60 Hz (AC-3) 11 kW at 415...440 V AC 50/60 Hz (AC-3) 15 kW at 500 V AC 50/60 Hz (AC-3) 15 kW at 660...690 V AC 50/60 Hz (AC-3) 5.5 kW at 400 V AC 50/60 Hz (AC-4) 5.5 kW at 220...230 V AC 50/60 Hz (AC-3e) 11 kW at 380...400 V AC 50/60 Hz (AC-3e) 11 kW at 415...440 V AC 50/60 Hz (AC-3e) 15 kW at 500 V AC 50/60 Hz (AC-3e) 15 kW at 660...690 V AC 50/60 Hz (AC-3e)
Maximum Horse Power Rating	3 hp at 230/240 V AC 50/60 Hz for 1 phase motors 2 hp at 115 V AC 50/60 Hz for 1 phase motors 7.5 hp at 230/240 V AC 50/60 Hz for 3 phase motors 15 hp at 460/480 V AC 50/60 Hz for 3 phase motors 20 hp at 575/600 V AC 50/60 Hz for 3 phase motors 7.5 hp at 200/208 V AC 50/60 Hz for 3 phase motors
Compatibility code	LC1D
Pole contact composition	3 NO
Protective cover	With
[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

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

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
[Icw] rated short-time withstand current	240 A 104 °F (40 °C) - 10 s for power circuit 380 A 104 °F (40 °C) - 1 s for power circuit 50 A 104 °F (40 °C) - 10 min for power circuit 120 A 104 °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 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 - Ith 40 A 50 Hz for power circuit
Power dissipation per pole	3.2 W AC-1 1.25 W AC-3 1.25 W AC-3e
[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
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 = 20000000 cycles contactor with mechanical load EN/ISO 13849-1
Mechanical durability	15 Mcycles
Electrical durability	1.65 Mcycles 25 A AC-3 <= 440 V 1.4 Mcycles 40 A AC-1 <= 440 V 1.65 Mcycles 25 A AC-3e <= 440 V
Control circuit type	AC 50/60 Hz standard
Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.3...0.6 Uc (-40...158 °F (-40...70 °C)):drop-out AC 50/60 Hz 0.8...1.1 Uc (-40...140 °F (-40...60 °C)):operational AC 50 Hz 0.85...1.1 Uc (-40...140 °F (-40...60 °C)):operational AC 60 Hz 1...1.1 Uc (140...158 °F (60...70 °C)):operational AC 50/60 Hz
Inrush power in VA	70 VA 60 Hz cos phi 0.75 (at 68 °F (20 °C)) 70 VA 50 Hz cos phi 0.75 (at 68 °F (20 °C))
Hold-in power consumption in VA	7.5 VA 60 Hz cos phi 0.3 (at 68 °F (20 °C)) 7 VA 50 Hz cos phi 0.3 (at 68 °F (20 °C))
Heat dissipation	2...3 W at 50/60 Hz
Operating time	12...22 ms closing 4...19 ms opening
Maximum operating rate	3600 cyc/h at 60 °C

Connections - terminals	<p>Control circuit: screw clamp terminals 1 0.002...0.006 in² (1...4 mm²) - cable stiffness: flexible without cable end</p> <p>Control circuit: screw clamp terminals 2 0.002...0.006 in² (1...4 mm²) - cable stiffness: flexible without cable end</p> <p>Control circuit: screw clamp terminals 1 0.002...0.006 in² (1...4 mm²) - cable stiffness: flexible with cable end</p> <p>Control circuit: screw clamp terminals 2 0.002...0.004 in² (1...2.5 mm²) - cable stiffness: flexible with cable end</p> <p>Control circuit: screw clamp terminals 1 0.002...0.006 in² (1...4 mm²) - cable stiffness: solid without cable end</p> <p>Control circuit: screw clamp terminals 2 0.002...0.006 in² (1...4 mm²) - cable stiffness: solid without cable end</p> <p>Power circuit: screw clamp terminals 1 0.004...0.02 in² (2.5...10 mm²) - cable stiffness: flexible without cable end</p> <p>Power circuit: screw clamp terminals 2 0.004...0.02 in² (2.5...10 mm²) - cable stiffness: flexible without cable end</p> <p>Power circuit: screw clamp terminals 1 0.002...0.02 in² (1...10 mm²) - cable stiffness: flexible with cable end</p> <p>Power circuit: screw clamp terminals 2 0.002...0.009 in² (1.5...6 mm²) - cable stiffness: flexible with cable end</p> <p>Power circuit: screw clamp terminals 1 0.002...0.02 in² (1.5...10 mm²) - cable stiffness: solid without cable end</p> <p>Power circuit: screw clamp terminals 2 0.004...0.02 in² (2.5...10 mm²) - cable stiffness: solid without cable end</p>
--------------------------------	---

Tightening torque	<p>Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm</p> <p>Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2</p> <p>Power circuit 22.1 lbf.in (2.5 N.m) screw clamp terminals flat Ø 6 mm</p> <p>Power circuit 22.1 lbf.in (2.5 N.m) screw clamp terminals Philips No 2</p> <p>Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2</p> <p>Power circuit 22.1 lbf.in (2.5 N.m) screw clamp terminals pozidriv No 2</p>
--------------------------	--

Auxiliary contact composition	1 NO + 1 NC
--------------------------------------	-------------

Auxiliary contacts type	<p>Mechanically linked 1 NO + 1 NC IEC 60947-5-1</p> <p>Mirror contact 1 NC IEC 60947-4-1</p>
--------------------------------	---

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	<p>1.5 ms on de-energisation between NC and NO contact</p> <p>1.5 ms on energisation between NC and NO contact</p>
-------------------------	--

Mounting Support	<p>Plate</p> <p>Rail</p>
-------------------------	--------------------------

Environment

Standards	<p>CSA C22.2 No 14</p> <p>EN 60947-4-1</p> <p>EN 60947-5-1</p> <p>IEC 60947-4-1</p> <p>IEC 60947-5-1</p> <p>UL 60947-4-1</p> <p>IEC 60335-1:Clause 30.2</p> <p>IEC 60335-2-40:Annex JJ</p> <p>UL 60335-2-40:Annex JJ</p> <p>CSA C22.2 No 60947-4-1</p>
------------------	--

Product Certifications	<p>UL</p> <p>CCC</p> <p>CSA</p> <p>Marine</p> <p>UKCA</p> <p>EAC</p> <p>CB Scheme</p>
-------------------------------	---

IP degree of protection	IP20 front face IEC 60529
--------------------------------	---------------------------

Protective treatment	THIEC 60068-2-30
-----------------------------	------------------

Climatic withstand	<p>IACS E10 exposure to damp heat</p> <p>IEC 60947-1 Annex Q category D exposure to damp heat</p>
---------------------------	---

Permissible ambient air temperature around the device	-40...140 °F (-40...60 °C) 140...158 °F (60...70 °C) with derating
Operating altitude	0...9842.52 ft (0...3000 m)
Fire resistance	1562 °F (850 °C) 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	3.3 in (85 mm)
Width	1.8 in (45 mm)
Depth	3.6 in (92 mm)
Net Weight	0.82 lb(US) (0.37 kg)

Ordering and shipping details

Category	US10I1222354
Discount Schedule	0I12
GTIN	3389110349658
Returnability	Yes
Country of origin	ID

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	1.97 in (5.000 cm)
Package 1 Width	3.54 in (9.000 cm)
Package 1 Length	4.33 in (11.000 cm)
Package weight(Lbs)	14.850 oz (421.000 g)
Unit Type of Package 2	S02
Number of Units in Package 2	20
Package 2 Height	5.91 in (15.000 cm)
Package 2 Width	11.81 in (30.000 cm)
Package 2 Length	15.75 in (40.000 cm)
Package 2 Weight	18.969 lb(US) (8.604 kg)
Unit Type of Package 3	P06
Number of Units in Package 3	320
Package 3 Height	29.53 in (75.000 cm)
Package 3 Width	23.62 in (60.000 cm)
Package 3 Length	31.50 in (80.000 cm)
Package 3 Weight	323.498 lb(US) (146.736 kg)

Contractual warranty

Warranty	18 months
-----------------	-----------

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	
Carbon footprint (kg CO2 eq, Total Life cycle)	127
Environmental Disclosure	Product Environmental Profile

Use Better

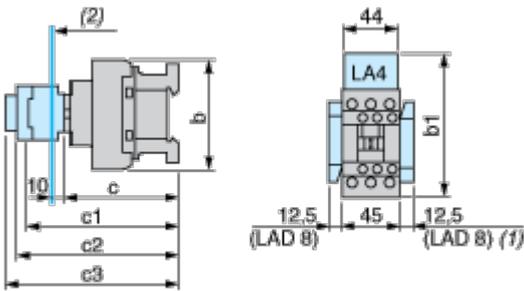
 Materials and Substances	
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
EU RoHS Directive	Compliant
REACH Regulation	REACH Declaration
California proposition 65	WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which 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	
Circularity Profile	End of Life Information
Take-back	No
WEEE	 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

Dimensions Drawings

Dimensions

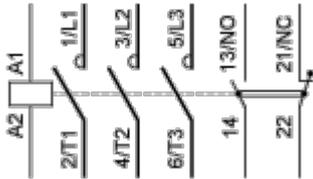


- (1) Including LAD 4BB
- (2) Minimum electrical clearance

LC1		D25...D38 (3-pole)
b	without add-on blocks	85
b1	with LAD 4BB	98
	with LA4 D•2	114 ⁽¹⁾
	with LA4 DF, DT	123 ⁽¹⁾
	with LA4 DW, DL	130 ⁽¹⁾
c	without cover or add-on blocks	90
	with cover, without add-on blocks	92
c1	with LAD N or C (2 or 4 contacts)	123
c2	with LA6 DK10, LAD 6K10	135
c3	with LAD T, R, S	143
	with LAD T, R, S and sealing cover	147
(1)	Including LAD 4BB.	

Connections and Schema

Wiring





Technical Illustration

Assembly's dimensions

