

# Product data sheet

Specifications



IEC contactor, TeSys Deca, nonreversing, 80A, 60HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, 24VAC 50/60Hz coil, open

LC1D80B7

Product availability: Stock - Normally stocked in distribution facility

Price\*: 363.00 USD

## Main

Range	TeSys
Range of Product	TeSys Deca
Product or Component Type	Contactors
Device short name	LC1D
contactor application	Motor control Resistive load
Utilisation category	AC-3 AC-3e AC-4 AC-1
poles description	3P
[Ue] rated operational voltage	Power circuit <= 300 V DC 25...400 Hz Power circuit <= 690 V AC
[Ie] rated operational current	125 A (at <140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit 80 A (at <140 °F (60 °C)) at <= 440 V AC AC-3 for power circuit 80 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	22 kW at 220...230 V AC 50/60 Hz (AC-3) 37 kW at 380...400 V AC 50/60 Hz (AC-3) 45 kW at 415...440 V AC 50/60 Hz (AC-3) 55 kW at 500 V AC 50/60 Hz (AC-3) 45 kW at 660...690 V AC 50/60 Hz (AC-3) 15 kW at 400 V AC 50/60 Hz (AC-4) 22 kW at 220...230 V AC 50/60 Hz (AC-3e) 37 kW at 380...400 V AC 50/60 Hz (AC-3e) 45 kW at 415...440 V AC 50/60 Hz (AC-3e) 55 kW at 500 V AC 50/60 Hz (AC-3e) 45 kW at 660...690 V AC 50/60 Hz (AC-3e)
Maximum Horse Power Rating	7.5 hp at 120 V AC 50/60 Hz for 1 phase motors 15 hp at 230/240 V AC 50/60 Hz for 1 phase motors 30 hp at 200/208 V AC 50/60 Hz for 3 phase motors 30 hp at 230/240 V AC 50/60 Hz for 3 phase motors 60 hp at 460/480 V AC 50/60 Hz for 3 phase motors 60 hp at 575/600 V AC 50/60 Hz for 3 phase motors
Compatibility code	LC1D
Pole contact composition	3 NO
Protective cover	With

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

<b>[Ith] conventional free air thermal current</b>	10 A (at 140 °F (60 °C)) for signalling circuit 125 A (at 140 °F (60 °C)) for power circuit
<b>Irms rated making capacity</b>	140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1 1100 A at 440 V for power circuit conforming to IEC 60947
<b>Rated breaking capacity</b>	1100 A at 440 V for power circuit conforming to IEC 60947
<b>[Icw] rated short-time withstand current</b>	640 A 104 °F (40 °C) - 10 s for power circuit 990 A 104 °F (40 °C) - 1 s for power circuit 135 A 104 °F (40 °C) - 10 min for power circuit 320 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
<b>Associated fuse rating</b>	10 A gG for signalling circuit conforming to IEC 60947-5-1 200 A gG at <= 690 V coordination type 1 for power circuit 160 A gG at <= 690 V coordination type 2 for power circuit
<b>Average impedance</b>	0.8 mOhm - Ith 125 A 50 Hz for power circuit
<b>Power dissipation per pole</b>	5.1 W AC-3 12.5 W AC-1 5.1 W AC-3e
<b>[Ui] rated insulation voltage</b>	Power circuit 600 V CSA Power circuit 600 V UL Power circuit 1000 V IEC 60947-4-1 Signalling circuit 690 V IEC 60947-1 Signalling circuit 600 V CSA Signalling circuit 600 V UL
<b>Overvoltage category</b>	III
<b>Pollution degree</b>	3
<b>[Uimp] rated impulse withstand voltage</b>	8 kV IEC 60947
<b>Safety reliability level</b>	B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1
<b>Mechanical durability</b>	4 Mcycles
<b>Electrical durability</b>	0.8 Mcycles 125 A AC-1 <= 440 V 1.5 Mcycles 80 A AC-3 <= 440 V 1.5 Mcycles 80 A AC-3e <= 440 V
<b>Control circuit type</b>	AC 50/60 Hz standard
<b>Coil technology</b>	Without built-in suppressor module
<b>Control circuit voltage limits</b>	0.85...1.1 Uc -40...131 °F (-40...55 °C) operational AC 60 Hz 0.3...0.6 Uc -40...158 °F (-40...70 °C) drop-out AC 50/60 Hz 0.8...1.1 Uc -40...131 °F (-40...55 °C) operational AC 50 Hz 1...1.1 Uc 131...158 °F (55...70 °C) operational AC 50/60 Hz
<b>Inrush power in VA</b>	245 VA 60 Hz cos phi 0.75 (at 68 °F (20 °C)) 245 VA 50 Hz cos phi 0.75 (at 68 °F (20 °C))
<b>Hold-in power consumption in VA</b>	26 VA 60 Hz cos phi 0.3 (at 68 °F (20 °C)) 26 VA 50 Hz cos phi 0.3 (at 68 °F (20 °C))
<b>Heat dissipation</b>	6...10 W at 50/60 Hz
<b>Operating time</b>	20...35 ms closing 6...20 ms opening
<b>Maximum operating rate</b>	3600 cyc/h 140 °F (60 °C)
<b>Maximum operating rate</b>	3600 cyc/h at 60 °C

<b>Connections - terminals</b>	Control circuit: screw clamp terminals 2 0.002...0.004 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 0.002...0.004 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: solid without cable end Power circuit: connector 1 0.006...0.08 in <sup>2</sup> (4...50 mm <sup>2</sup> ) - cable stiffness: flexible without cable end Power circuit: connector 2 0.006...0.04 in <sup>2</sup> (4...25 mm <sup>2</sup> ) - cable stiffness: flexible without cable end Power circuit: connector 1 0.006...0.08 in <sup>2</sup> (4...50 mm <sup>2</sup> ) - cable stiffness: flexible with cable end Power circuit: connector 2 0.006...0.02 in <sup>2</sup> (4...16 mm <sup>2</sup> ) - cable stiffness: flexible with cable end Power circuit: connector 1 0.006...0.08 in <sup>2</sup> (4...50 mm <sup>2</sup> ) - cable stiffness: solid without cable end Power circuit: connector 2 0.006...0.04 in <sup>2</sup> (4...25 mm <sup>2</sup> ) - cable stiffness: solid without cable end
<b>Tightening torque</b>	Control circuit 10.6 lbf.in (1.2 N.m) screw clamp terminals flat Ø 6 mm Control circuit 10.6 lbf.in (1.2 N.m) screw clamp terminals Philips No 2 Power circuit 106.2 lbf.in (12 N.m) connector flat Ø 6 to Ø 8 mm Power circuit 106.2 lbf.in (12 N.m) connector hexagonal 0.2 in (4 mm) Control circuit 10.6 lbf.in (1.2 N.m) screw clamp terminals pozidriv No 2
<b>Auxiliary contact composition</b>	1 NO + 1 NC
<b>Auxiliary contacts type</b>	Mechanically linked 1 NO + 1 NC IEC 60947-5-1 Mirror contact 1 NC IEC 60947-4-1
<b>Signalling circuit frequency</b>	25...400 Hz
<b>Minimum switching voltage</b>	17 V for signalling circuit
<b>Minimum switching current</b>	5 mA for signalling circuit
<b>Insulation resistance</b>	> 10 MOhm for signalling circuit
<b>Non-overlap time</b>	1.5 ms on de-energisation between NC and NO contact 1.5 ms on energisation between NC and NO contact
<b>Mounting Support</b>	Plate Rail

## Environment

<b>Standards</b>	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
<b>Product Certifications</b>	CCC UL CB Scheme CSA CE UKCA Marine EAC
<b>IP degree of protection</b>	IP20 front face IEC 60529
<b>Protective treatment</b>	THIEC 60068-2-30
<b>Climatic withstand</b>	IACS E10 exposure to damp heat

<b>Permissible ambient air temperature around the device</b>	-40...140 °F (-40...60 °C) 140...158 °F (60...70 °C) with derating
<b>Operating altitude</b>	0...9842.52 ft (0...3000 m)
<b>Fire resistance</b>	1562 °F (850 °C) IEC 60695-2-1
<b>Flame retardance</b>	V1 conforming to UL 94
<b>Mechanical robustness</b>	Vibrations contactor open 2 Gn, 5...300 Hz) Shocks contactor open 8 Gn for 11 ms) Vibrations contactor closed 3 Gn, 5...300 Hz) Shocks contactor closed 10 Gn for 11 ms)
<b>Height</b>	5.000000000 in (127 mm)
<b>Width</b>	3.3 in (85 mm)
<b>Depth</b>	5.1 in (130 mm)
<b>Net Weight</b>	3.51 lb(US) (1.59 kg)

## Ordering and shipping details

<b>Category</b>	US10I1222359
<b>Discount Schedule</b>	0I12
<b>GTIN</b>	3389110440034
<b>Returnability</b>	Yes
<b>Country of origin</b>	CZ

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	3.7 in (9.5 cm)
<b>Package 1 Width</b>	5.3 in (13.5 cm)
<b>Package 1 Length</b>	5.5 in (14.0 cm)
<b>Package 1 Weight</b>	3.428 lb(US) (1.555 kg)
<b>Unit Type of Package 2</b>	S02
<b>Number of Units in Package 2</b>	5
<b>Package 2 Height</b>	5.9 in (15.0 cm)
<b>Package 2 Width</b>	11.8 in (30.0 cm)
<b>Package 2 Length</b>	15.7 in (40.0 cm)
<b>Package 2 Weight</b>	17.9 lb(US) (8.1 kg)
<b>Unit Type of Package 3</b>	P06
<b>Number of Units in Package 3</b>	80
<b>Package 3 Height</b>	30.3 in (77.0 cm)
<b>Package 3 Width</b>	31.5 in (80.0 cm)
<b>Package 3 Length</b>	23.6 in (60.0 cm)
<b>Package 3 Weight</b>	304.5 lb(US) (138.1 kg)

## Contractual warranty

<b>Warranty</b>	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-CO<sub>2</sub> 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	<a href="#">REACH Declaration</a>
Eu Rohs Directive	Compliant <a href="#">EU RoHS Declaration</a>
China Rohs Regulation	<a href="#">China RoHS declaration</a> Pro-active China RoHS declaration (out of China RoHS legal scope)
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.
Circularity Profile	No need of specific recycling operations

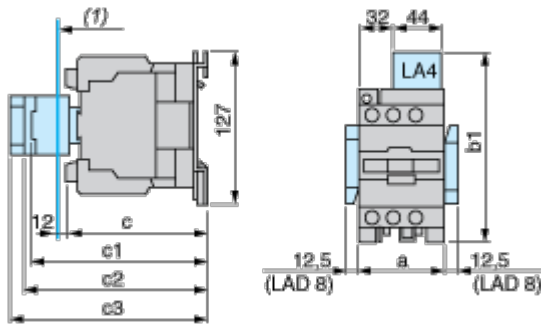
**California Proposition 65**

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](http://www.P65Warnings.ca.gov)

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Dimensions Drawings

Dimensions



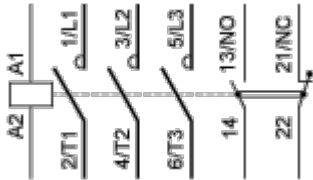
(1) Minimum electrical clearance

LC1		D80	D95
<b>a</b>		85	85
<b>b1</b>	with LA4 D•2	135	135
	with LA4 DB3 or LAD 4BB3	135	–
	with LA4 DF, DT	142	142
	with LA4 DM, DW, DL	150	150
<b>c</b>	without cover or add-on blocks	125	125
	with cover, without add-on blocks	130	130
<b>c1</b>	with LAD N (1 contact)	150	150
	with LAD N or C (2 or 4 contacts)	158	158
<b>c2</b>	with LA6 DK10, LAD 6DK	170	170
<b>c3</b>	with LAD T, R, S	178	178
	with LAD T, R, S and sealing cover	182	182

Connections and Schema

Wiring

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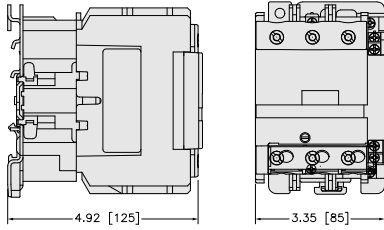


Technical Illustration

Dimensions

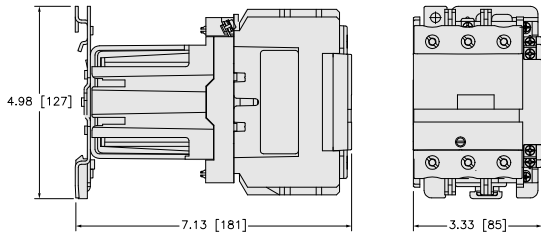
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CONTACTOR WITH AC COIL



in.  
[mm]

CONTACTOR WITH DC COIL



ALL DIMENSIONS ARE APPROXIMATE.  
REFER TO TECHNICAL DRAWINGS AND DOCUMENTATION FOR COMPLETE INFORMATION.