

# LC1D50AV7

IEC contactor, TeSys Deca, nonreversing, 50A, 40HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, 400VAC 50/60Hz coil, open



## Main

Range	TeSys TeSys Deca
Range of Product	TeSys Deca
Product or Component Type	Contactors
Device short name	LC1D
Contactors application	Motor control Resistive load
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 °F (60 °C)) at <= 440 V AC AC-3 for power circuit 80 A (at <140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit 50 A (at <140 °F (60 °C)) at <= 440 V AC AC-3e for power circuit
[Uc] control circuit voltage	400 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)
Maximum Horse Power Rating	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 phase motors 15 Hp at 230/240 V AC 50/60 Hz for 3 phase motors 40 Hp at 460/480 V AC 50/60 Hz for 3 phase motors 40 hp at 575/600 V AC 50/60 Hz for 3 phase motors
Compatibility code	LC1D
Pole contact composition	3 NO
Contact compatibility	M2
Protective cover	With
[Ith] conventional free air thermal current	10 A (at 140 °F (60 °C)) for signalling circuit 80 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 60947-5-1 900 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

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. 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. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

[Icw] rated short-time withstand current	400 A 104 °F (40 °C) - 10 s for power circuit 810 A 104 °F (40 °C) - 1 s for power circuit 84 A 104 °F (40 °C) - 10 min for power circuit 208 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 60947-5-1 100 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 - Ith 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[RETURN]Power circuit 600 V UL[RETURN]Signalling circuit 690 V IEC 60947-1[RETURN]Signalling circuit 600 V CSA[RETURN]Signalling circuit 600 V UL[RETURN]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 = 20000000 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 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	140 VA 60 Hz cos phi 0.75 (at 68 °F (20 °C)) 160 VA 50 Hz cos phi 0.75 (at 68 °F (20 °C))
Hold-in power consumption in VA	13 VA 60 Hz cos phi 0.3 (at 68 °F (20 °C)) 15 VA 50 Hz cos phi 0.3 (at 68 °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 °F (60 °C)
Connections - terminals	Control circuit: screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: solid without cable end Power circuit: screw connection 1 0.00...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> ) - cable stiffness: flexible without cable end Power circuit: screw connection 2 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> ) - cable stiffness: flexible without cable end Power circuit: screw connection 1 0.00...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> ) - cable stiffness: flexible with cable end Power circuit: screw connection 2 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> ) - cable stiffness: flexible with cable end Power circuit: screw connection 1 0.00...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> ) - cable stiffness: solid without cable end Power circuit: screw connection 2 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> ) - cable stiffness: solid without cable end

Tightening torque	Control circuit 15.05 lbf.in (1.7 N.m) EverLink BTR screw connectors flat Ø 6 mm Control circuit 15.05 lbf.in (1.7 N.m) EverLink BTR screw connectors Philips No 2 Power circuit 70.81 lbf.in (8 N.m) EverLink BTR screw connectors 0.04...0.05 in <sup>2</sup> (25...35 mm <sup>2</sup> ) hexagonal 0.16 in (4 mm) Power circuit 44.25 lbf.in (5 N.m) EverLink BTR screw connectors 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> ) hexagonal 0.16 in (4 mm) Control circuit 15.05 lbf.in (1.7 N.m) EverLink BTR screw connectors pozidriv No 2 Power circuit 22.13 lbf.in (2.5 N.m) EverLink BTR screw connectors 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	CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508 IEC 60335-1
Product Certifications	BV[RETURN]GOST[RETURN]LROS (Lloyds register of shipping) [RETURN]GL[RETURN]DNV[RETURN]UL[RETURN]CCC[RETURN]CSA[RETURN]RINA
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...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 10 Gn for 11 ms)
Height	4.80 in (122 mm)
Width	2.17 in (55 mm)
Depth	4.72 in (120 mm)
Net Weight	1.88 lb(US) (0.855 kg)

## Ordering and shipping details

Category	22357-CTR, TESYS D, OPEN, 40-65A AC
Discount Schedule	I12
GTIN	3389119408738
Returnability	No
Country of origin	FR

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	2.44 in (6.200 cm)
Package 1 Width	5.43 in (13.800 cm)
Package 1 Length	6.10 in (15.500 cm)

Package 1 Weight	32.24 oz (914.000 g)
Unit Type of Package 2	S02
Number of Units in Package 2	10
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	20.56 lb(US) (9.325 kg)

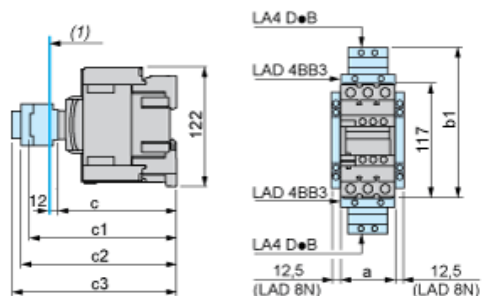
### Offer Sustainability

Sustainable offer status	Green Premium product
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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
REACH Regulation	<a href="#">REACH Declaration</a>
REACH free of SVHC	Yes
EU RoHS Directive	Compliant <a href="#">EU RoHS Declaration</a>
Toxic heavy metal free	Yes
Mercury free	Yes
China RoHS Regulation	<a href="#">China RoHS Declaration</a>
RoHS exemption information	<a href="#">Yes</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End Of Life Information</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.
PVC free	Yes

### Contractual warranty

Warranty	18 months
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Dimensions



(1) Minimum electrical clearance

LC1		D40A...D65A
a		55
b1	with LA4 D•2	–
	with LA4 DB3 or LAD 4BB3	136
	with LA4 DF, DT	157
	with LA4 DM, DW, DL	166
c	without cover or add-on blocks	118
	with cover, without add-on blocks	120
c1	with LAD N (1 contact)	–
	with LAD N or C (2 or 4 contacts)	150
c2	with LA6 DK10, LAD 6DK	163
c3	with LAD T, R, S	171
	with LAD T, R, S and sealing cover	175

## Wiring

