

# LC1D50ABD

IEC contactor, TeSys Deca, nonreversing, 50A, 40HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, 24VDC coil, open style



## Main

Range	TeSys TeSys Deca
Range of Product	TeSys Deca
Product or Component Type	Contacteur
Device short name	LC1D
Contacteur 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 140 °F (60 °C) <= 440 V AC AC-3 power circuit 80 A 140 °F (60 °C) <= 440 V AC AC-1 power circuit 50 A 140 °F (60 °C) <= 440 V AC AC-3e power circuit
[Uc] control circuit voltage	24 V DC

## Complementary

Motor power kW	15 KW 220...230 V AC 50/60 Hz AC-3) 22 KW 380...400 V AC 50/60 Hz AC-3) 30 KW 500 V AC 50/60 Hz AC-3) 33 KW 660...690 V AC 50/60 Hz AC-3) 25 KW 415 V AC 50/60 Hz AC-3) 30 KW 440 V AC 50/60 Hz AC-3) 11 KW 400 V AC 50/60 Hz AC-4) 15 KW 220...230 V AC 50/60 Hz AC-3e) 22 KW 380...400 V AC 50/60 Hz AC-3e) 30 KW 500 V AC 50/60 Hz AC-3e) 33 KW 660...690 V AC 50/60 Hz AC-3e) 25 KW 415 V AC 50/60 Hz AC-3e) 30 KW 440 V AC 50/60 Hz AC-3e)
Maximum Horse Power Rating	3 Hp 115 V at AC 50/60 Hz for 1 phase 7.5 Hp 230/240 V at AC 50/60 Hz for 1 phase 15 Hp 200/208 V at AC 50/60 Hz for 3 phase 15 Hp 230/240 V at AC 50/60 Hz for 3 phase 40 Hp 460/480 V at AC 50/60 Hz for 3 phase 40 hp 575/600 V at AC 50/60 Hz for 3 phase
Compatibility code	LC1D
Pole contact composition	3 NO
Contact compatibility	M4
Protective cover	With
[Ith] conventional free air thermal current	10 A 140 °F (60 °C) signalling circuit 80 A 140 °F (60 °C) power circuit
Irms rated making capacity	140 A AC signalling circuit IEC 60947-5-1 250 A DC signalling circuit IEC 60947-5-1 900 A 440 V power circuit IEC 60947
Rated breaking capacity	900 A 440 V power circuit IEC 60947

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[Icw] rated short-time withstand current	400 A 104 °F (40 °C) - 10 s power circuit 810 A 104 °F (40 °C) - 1 s power circuit 84 A 104 °F (40 °C) - 10 min power circuit 208 A 104 °F (40 °C) - 1 min power circuit 100 A - 1 s signalling circuit 120 A - 500 ms signalling circuit 140 A - 100 ms signalling circuit
Associated fuse rating	10 A gG signalling circuit IEC 60947-5-1 100 A gG ≤ 690 V type 1 power circuit 100 A gG ≤ 690 V type 2 power circuit
Average impedance	1.5 mOhm - Ith 80 A 50 Hz 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 Power circuit 600 V UL Signalling circuit 690 V IEC 60947-1 Signalling circuit 600 V CSA Signalling circuit 600 V UL 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	10 Mcycles
Electrical durability	1.45 Mcycles 50 A AC-3 ≤ 440 V 0.5 Mcycles 80 A AC-1 ≤ 440 V 1.45 Mcycles 50 A AC-3e ≤ 440 V
Control circuit type	DC standard
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 0.75...1.25 Uc -40...140 °F (-40...60 °C) operational DC 1...1.25 Uc 140...158 °F (60...70 °C) operational DC
Inrush power in W	19 W 68 °F (20 °C))
Hold-in power consumption in W	7.4 W 68 °F (20 °C)
Operating time	42.5...57.5 ms closing 16...24 ms opening
Time constant	34 ms
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> ) flexible with cable end Control circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) flexible without cable end Control circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) flexible without cable end Control circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) flexible with cable end Control circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) solid without cable end Control circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) solid without cable end Power circuit screw connection 1 0.00...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> ) flexible without cable end Power circuit screw connection 2 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> ) flexible without cable end Power circuit screw connection 1 0.00...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> ) flexible with cable end Power circuit screw connection 2 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> ) flexible with cable end Power circuit screw connection 1 0.00...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> ) solid without cable end Power circuit screw connection 2 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> ) solid without cable end
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 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) screw clamp terminals pozidriv No 2 Power circuit 22.13 lbf.in (2.5 N.m) screw clamp terminals 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 signalling circuit
Minimum switching current	5 mA signalling circuit
Insulation resistance	> 10 MOhm 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 508 IEC 60335-1
Product Certifications	UL GOST DNV LROS (Lloyds register of shipping) CCC GL CSA RINA BV
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	2.05 lb(US) (0.93 kg)

## Ordering and shipping details

Category	22358-CTR, TESYS D, OPEN, 40-65A DC
Discount Schedule	I12
GTIN	3389119408783
Returnability	Yes
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	5.39 in (13.700 cm)
Package 1 Length	5.98 in (15.200 cm)
Package 1 Weight	35.24 oz (999.000 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	22.62 lb(US) (10.260 kg)

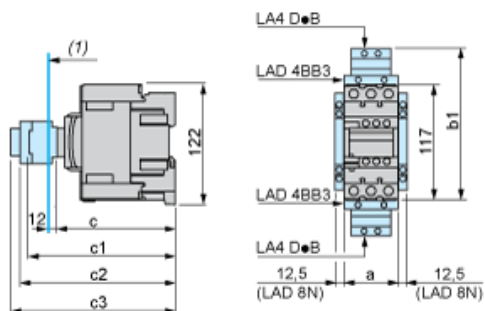
## Offer Sustainability

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>
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 LAD 4BB3	136
	with LA4 DF, DT	157
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	163
c3	with LAD T, R, S	171
	with LAD T, R, S and sealing cover	175

Wiring

