

Product data sheet

Specifications



IEC contactor, TeSys Deca, nonreversing, 40A, 30HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, 24VDC coil, open style

LC1D40ABD

Product availability : Stock - Normally stocked in distribution facility

Main

Range	TeSys TeSys Deca
Product name	TeSys D TeSys Deca
Product or Component Type	Contactors
Device short name	LC1D
Contactors application	Resistive load Motor control
Utilisation category	AC-4 AC-1 AC-3 AC-3e
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	60 A 140 °F (60 °C)) <= 440 V AC AC-1 power circuit 40 A 140 °F (60 °C)) <= 440 V AC AC-3 power circuit 40 A 140 °F (60 °C)) <= 440 V AC AC-3e power circuit
Motor power kW	18.5 kW 380...400 V AC 50/60 Hz AC-3) 11 kW 220...230 V AC 50/60 Hz AC-3) 22 kW 415...440 V AC 50/60 Hz AC-3) 22 kW 500 V AC 50/60 Hz AC-3) 30 kW 660...690 V AC 50/60 Hz AC-3) 9 kW 400 V AC 50/60 Hz AC-4) 18.5 kW 380...400 V AC 50/60 Hz AC-3e) 11 kW 220...230 V AC 50/60 Hz AC-3e) 22 kW 415...440 V AC 50/60 Hz AC-3e) 22 kW 500 V AC 50/60 Hz AC-3e) 30 kW 660...690 V AC 50/60 Hz AC-3e)
Motor power HP (UL / CSA)	5 hp 230/240 V at AC 50/60 Hz for 1 phase 10 hp 230/240 V at AC 50/60 Hz for 3 phase 30 hp 575/600 V at AC 50/60 Hz for 3 phase 10 hp 200/208 V at AC 50/60 Hz for 3 phase 3 hp 115 V at AC 50/60 Hz for 1 phase 30 hp 460/480 V at AC 50/60 Hz for 3 phase
Control circuit type	DC standard
[Uc] control circuit voltage	24 V DC
Auxiliary contact composition	1 NO + 1 NC

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[Uimp] rated impulse withstand voltage	6 kV IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	10 A 140 °F (60 °C) signalling circuit 60 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 60947-5-1 800 A 440 V power circuit IEC 60947
Rated breaking capacity	800 A 440 V power circuit IEC 60947
[Icw] rated short-time withstand current	320 A 104 °F (40 °C) - 10 s power circuit 720 A 104 °F (40 °C) - 1 s power circuit 72 A 104 °F (40 °C) - 10 min power circuit 165 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 80 A gG <= 690 V type 1 power circuit 80 A gG <= 690 V type 2 power circuit
Average impedance	1.5 mOhm - Ith 60 A 50 Hz power circuit
[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
Electrical durability	0.7 Mcycles 60 A AC-1 <= 440 V 1.5 Mcycles 40 A AC-3 <= 440 V 1.5 Mcycles 40 A AC-3e <= 440 V
Power dissipation per pole	2.4 W AC-3 5.4 W AC-1 2.4 W AC-3e
Front cover	With
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 IEC 60335-1
Product certifications	CCC CSA GOST UL
Connections - terminals	Control circuit screw clamp terminals 2 0.00...0.00 in² (1...2.5 mm²)flexible with cable end Control circuit screw clamp terminals 1 0.00...0.01 in² (1...4 mm²)flexible without cable end Control circuit screw clamp terminals 2 0.00...0.01 in² (1...4 mm²)flexible without cable end Control circuit screw clamp terminals 1 0.00...0.01 in² (1...4 mm²)flexible with cable end Control circuit screw clamp terminals 1 0.00...0.01 in² (1...4 mm²)solid without cable end Control circuit screw clamp terminals 2 0.00...0.01 in² (1...4 mm²)solid without cable end Power circuit screw connection 1 0.00...0.05 in² (1...35 mm²)flexible without cable end Power circuit screw connection 2 0.00...0.04 in² (1...25 mm²)flexible without cable end Power circuit screw connection 1 0.00...0.05 in² (1...35 mm²)flexible with cable end Power circuit screw connection 2 0.00...0.04 in² (1...25 mm²)flexible with cable end Power circuit screw connection 1 0.00...0.05 in² (1...35 mm²)solid without cable end Power circuit screw connection 2 0.00...0.04 in² (1...25 mm²)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 in² (25...35 mm²) hexagonal 0.16 in (4 mm) Power circuit 44.25 lbf.in (5 N.m) EverLink BTR screw connectors 0.00...0.04 in² (1...25 mm²) 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
Operating time	42.5...57.5 ms closing 16...24 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	10 Mcycles

Maximum operating rate	3600 cyc/h 140 °F (60 °C)
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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 0.75...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	34 ms
Inrush power in W	19 W 68 °F (20 °C))
Hold-in power consumption in W	7.4 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 signalling circuit
Minimum switching voltage	17 V 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 signalling circuit

Environment

IP degree of protection	IP20 front face IEC 60529
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...9842.52 ft (0...3000 m)
Fire resistance	1562 °F (850 °C) IEC 60695-2-1
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 open10 Gn for 11 ms
Height	4.80 in (122 mm)
Width	2.17 in (55 mm)
Depth	4.72 in (120 mm)
Net Weight	2.04 lb(US) (0.925 kg)

Ordering and shipping details

Category	22358-CTR, TESYS D, OPEN, 40-65A DC
Discount Schedule	I12
GTIN	3389119408486
Nbr. of units in pkg.	1
Package weight(Lbs)	34.89 oz (989.0 g)
Returnability	Yes
Country of origin	FR

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Packing Units

Unit Type of Package 1	PCE
Package 1 Height	2.44 in (6.2 cm)
Package 1 width	5.39 in (13.7 cm)
Package 1 Length	5.98 in (15.2 cm)
Unit Type of Package 2	S02
Number of Units in Package 2	10
Package 2 Weight	22.66 lb(US) (10.278 kg)
Package 2 Height	5.91 in (15 cm)
Package 2 width	11.81 in (30 cm)
Package 2 Length	15.75 in (40 cm)
Unit Type of Package 3	P06
Number of Units in Package 3	160
Package 3 Weight	392.11 lb(US) (177.86 kg)
Package 3 Height	30.31 in (77 cm)
Package 3 width	23.62 in (60 cm)
Package 3 Length	31.50 in (80 cm)

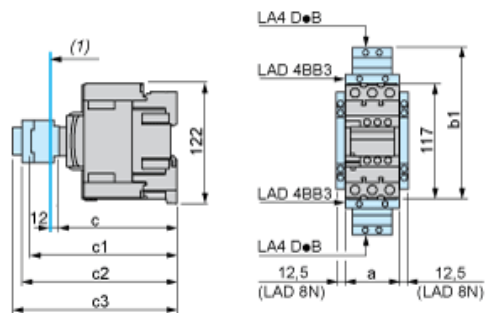
Offer Sustainability

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 P65Warnings website
REACH Regulation	REACH Declaration
EU RoHS Directive	Compliant EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS declaration Product out of China RoHS scope. Substance declaration for your information.
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information
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

