

Product data sheet

Specifications



IEC contactor, TeSys Deca, nonreversing, 9A, 5HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, 24VDC coil, open style

LC1D09BD

Product availability : Stock - Normally stocked in distribution facility

Price* : 119.00 USD

Main

Range of Product	TeSys Deca
Product or Component Type	Contactor
Device short name	LC1D
Contactor 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	9 A 140 °F (60 °C) <= 440 V AC AC-3 power circuit 25 A 140 °F (60 °C) <= 440 V AC AC-1 power circuit 9 A 140 °F (60 °C) <= 440 V AC AC-3e power circuit
[Uc] control circuit voltage	24 V DC

Complementary

Motor power kW	2.2 kW 220...230 V AC 50/60 Hz AC-3) 4 kW 380...400 V AC 50/60 Hz AC-3) 4 kW 415...440 V AC 50/60 Hz AC-3) 5.5 kW 500 V AC 50/60 Hz AC-3) 5.5 kW 660...690 V AC 50/60 Hz AC-3) 2.2 kW 400 V AC 50/60 Hz AC-4) 2.2 kW 220...230 V AC 50/60 Hz AC-3e) 4 kW 380...400 V AC 50/60 Hz AC-3e) 4 kW 415...440 V AC 50/60 Hz AC-3e) 5.5 kW 500 V AC 50/60 Hz AC-3e) 5.5 kW 660...690 V AC 50/60 Hz AC-3e)
Maximum Horse Power Rating	1 hp 230/240 V at AC 50/60 Hz for 1 phase 2 hp 200/208 V at AC 50/60 Hz for 3 phase 2 hp 230/240 V at AC 50/60 Hz for 3 phase 5 hp 460/480 V at AC 50/60 Hz for 3 phase 7.5 hp 575/600 V at AC 50/60 Hz for 3 phase 0.33 hp 115 V at AC 50/60 Hz for 1 phase
Compatibility code	LC1D
Pole contact composition	3 NO
Contact compatibility	M4
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.

[Ith] conventional free air thermal current	25 A 140 °F (60 °C) power circuit 10 A 140 °F (60 °C) signalling circuit
Irms rated making capacity	250 A 440 V power circuit IEC 60947 140 A AC signalling circuit IEC 60947-5-1 250 A DC signalling circuit IEC 60947-5-1
Rated breaking capacity	250 A 440 V power circuit IEC 60947
[Icw] rated short-time withstand current	105 A 104 °F (40 °C) - 10 s power circuit 210 A 104 °F (40 °C) - 1 s power circuit 30 A 104 °F (40 °C) - 10 min power circuit 61 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 25 A gG ≤ 690 V type 1 power circuit 20 A gG ≤ 690 V type 2 power circuit
Average impedance	2.5 mOhm - Ith 25 A 50 Hz power circuit
Power dissipation per pole	1.56 W AC-1 0.2 W AC-3 0.2 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	30 Mcycles
Electrical durability	0.6 Mcycles 25 A AC-1 ≤ 440 V 2 Mcycles 9 A AC-3 ≤ 440 V 2 Mcycles 9 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...0.25 Uc -40...158 °F (-40...70 °C) drop-out DC 0.7...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	5.4 W 68 °F (20 °C))
Hold-in power consumption in W	5.4 W 68 °F (20 °C)
Operating time	53.55...72.45 ms closing 16...24 ms opening
Time constant	28 ms
Maximum operating rate	3600 cyc/h 140 °F (60 °C)
Connections - terminals	Power circuit screw clamp terminals 1 0.00...0.01 in ² (1...4 mm ²) flexible without cable end Power circuit screw clamp terminals 2 0.00...0.01 in ² (1...4 mm ²) flexible without cable end Power circuit screw clamp terminals 1 0.00...0.01 in ² (1...4 mm ²) flexible with cable end Power circuit screw clamp terminals 2 0.00...0.00 in ² (1...2.5 mm ²) flexible with cable end Power circuit screw clamp terminals 1 0.00...0.01 in ² (1...4 mm ²) solid without cable end Power circuit screw clamp terminals 2 0.00...0.01 in ² (1...4 mm ²) solid without cable end Control circuit screw clamp terminals 1 0.00...0.01 in ² (1...4 mm ²) flexible without cable end Control circuit screw clamp terminals 2 0.00...0.01 in ² (1...4 mm ²) flexible without cable end Control circuit screw clamp terminals 1 0.00...0.01 in ² (1...4 mm ²) flexible with cable end Control circuit screw clamp terminals 2 0.00...0.00 in ² (1...2.5 mm ²) flexible with cable end Control circuit screw clamp terminals 1 0.00...0.01 in ² (1...4 mm ²) solid without cable end Control circuit screw clamp terminals 2 0.00...0.01 in ² (1...4 mm ²) solid without cable end
Tightening torque	Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2 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 Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2 Power circuit 15.05 lbf.in (1.7 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	LROS (Lloyds register of shipping) CSA UL GOST DNV CCC GL BV RINA UKCA
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 open 10 Gn for 11 ms) Shocks contactor closed 15 Gn for 11 ms)
Height	3.03 in (77 mm)
Width	1.77 in (45 mm)
Depth	3.74 in (95 mm)
Product Weight	1.06 lb(US) (0.48 kg)

Ordering and shipping details

Category	22355-CTR, TESYS D, OPEN, 9-38A DC
Discount Schedule	I12
GTIN	3389110353075
Returnability	Yes
Country of origin	ID

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	1.97 in (5.000 cm)
Package 1 Width	3.62 in (9.200 cm)
Package 1 Length	4.37 in (11.100 cm)
Package 1 Weight	18.41 oz (522.000 g)
Unit Type of Package 2	S02
Number of Units in Package 2	15
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	17.99 lb(US) (8.160 kg)
Unit Type of Package 3	P06
Number of Units in Package 3	240
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	302.65 lb(US) (137.280 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 www.P65Warnings.ca.gov
REACH Regulation	REACH Declaration
EU RoHS Directive	Compliant EU RoHS Declaration
Mercury free	Yes
China RoHS Regulation	China RoHS declaration Product out of China RoHS scope. Substance declaration for your information.
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information
PVC free	Yes

Contractual warranty

Warranty	18 months
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Dimensions



(1) Minimum electrical clearance

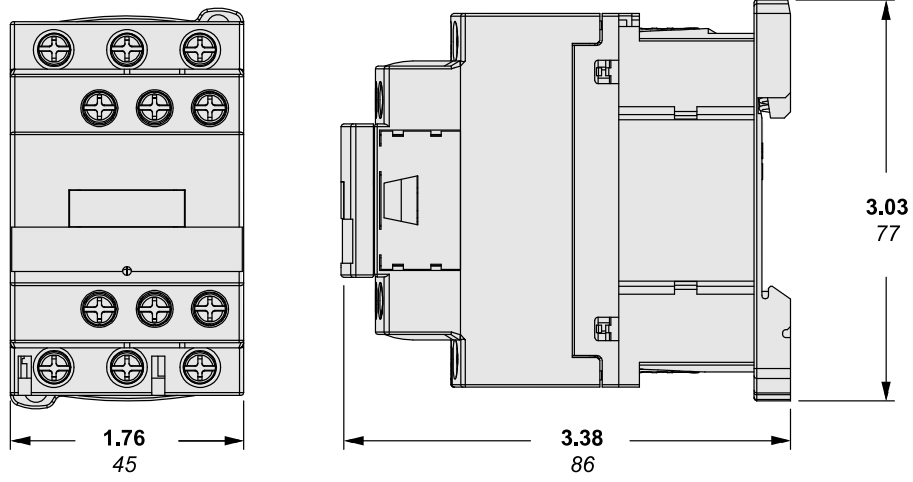
LC1		D09...D18	D093...D123	D099...D129
b		77	99	80
c	without cover or add-on blocks	93	93	93
	with cover, without add-on blocks	95	95	95
c1	with LAD N or C (2 or 4 contacts)	126	126	126
c2	with LA6 DK10	138	138	138
c3	with LAD T, R, S	146	146	146
	with LAD T, R, S and sealing cover	150	150	150

Wiring



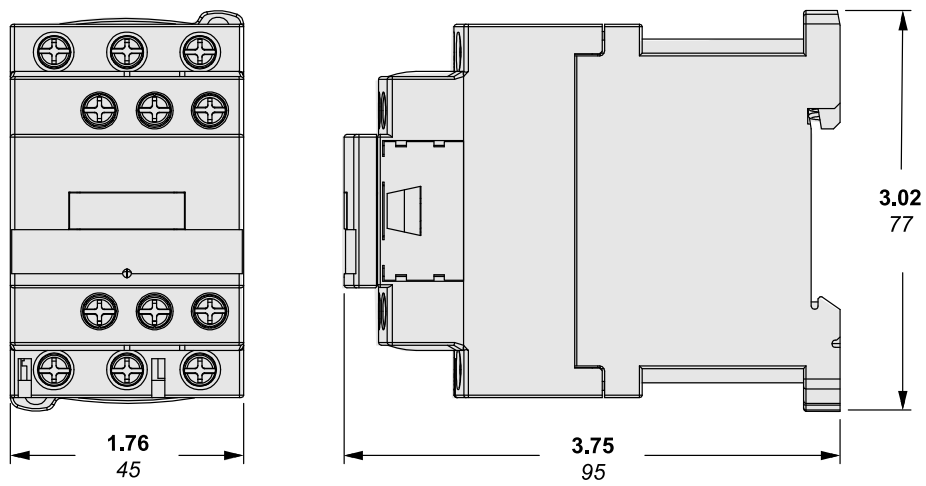
Dimensions

CONTACTOR WITH AC COIL



in.
mm

CONTACTOR WITH DC COIL



All dimensions are approximate. Also refer to technical drawings and documentation.

Recommended replacement(s)