

# LC1D150D7

Contacteur, TeSys Deca, 3P(3NO), AC-3/AC-3e, <=440V, 150A, 42V AC 50/60Hz coil, screw clamp terminals



## Main

Range	TeSys
Range of Product	TeSys Deca
Product or Component Type	Contacteur
Device short name	LC1D
Contacteur application	Resistive load Motor control
Utilisation category	AC-1 AC-4 AC-3 AC-3e
Poles description	3P
[Ue] rated operational voltage	Power circuit <= 1000 V AC 25...400 Hz Power circuit <= 300 V DC
[Ie] rated operational current	200 A (at <140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit 150 A (at <140 °F (60 °C)) at <= 440 V AC AC-3 for power circuit 150 A (at <140 °F (60 °C)) at <= 440 V AC AC-3e for power circuit
[Uc] control circuit voltage	42 V AC 50/60 Hz

## Complementary

Motor power kW	40 kW at 220...230 V AC 50/60 Hz (AC-3) 75 kW at 380...400 V AC 50/60 Hz (AC-3) 80 kW at 415...440 V AC 50/60 Hz (AC-3) 90 kW at 500 V AC 50/60 Hz (AC-3) 100 kW at 660...690 V AC 50/60 Hz (AC-3) 75 kW at 1000 V AC 50/60 Hz (AC-3) 22 kW at 400 V AC 50/60 Hz (AC-4) 40 kW at 220...230 V AC 50/60 Hz (AC-3e) 75 kW at 380...400 V AC 50/60 Hz (AC-3e) 80 kW at 415...440 V AC 50/60 Hz (AC-3e) 90 kW at 500 V AC 50/60 Hz (AC-3e) 100 kW at 660...690 V AC 50/60 Hz (AC-3e) 75 kW at 1000 V AC 50/60 Hz (AC-3e)
Maximum Horse Power Rating	40 Hp at 200/208 V AC 50/60 Hz for 3 phase motors 50 Hp at 230/240 V AC 50/60 Hz for 3 phase motors 100 Hp at 460/480 V AC 50/60 Hz for 3 phase motors 125 hp at 575/600 V AC 50/60 Hz for 3 phase motors
Compatibility code	LC1D
Pole contact composition	3 NO
Contact compatibility	M13
Protective cover	With
[Ith] conventional free air thermal current	200 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 1660 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	1400 A at 440 V for power circuit conforming to IEC 60947

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[Icw] rated short-time withstand current	250 A 104 °F (40 °C) - 10 min for power circuit 580 A 104 °F (40 °C) - 1 min for power circuit 1200 A 104 °F (40 °C) - 10 s for power circuit 1400 A 104 °F (40 °C) - 1 s 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 60947-5-1 315 A gG at ≤ 690 V coordination type 1 for power circuit 250 A gG at ≤ 690 V coordination type 2 for power circuit
Average impedance	0.6 mOhm - Ith 200 A 50 Hz for power circuit
Power dissipation per pole	24 W AC-1 13.5 W AC-3 13.5 W AC-3e
[Ui] rated insulation voltage	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
Overvoltage category	III
Pollution degree	3
[Uimp] rated impulse withstand voltage	8 kV IEC 60947
Safety reliability level	B10d = 684932 cycles contactor with nominal load EN/ISO 13849-1 B10d = 10000000 cycles contactor with mechanical load EN/ISO 13849-1
Mechanical durability	8 Mcycles
Electrical durability	0.85 Mcycles 150 A AC-3 ≤ 440 V 1 Mcycles 200 A AC-1 ≤ 440 V 0.85 Mcycles 150 A AC-3e ≤ 440 V
Control circuit type	AC 50/60 Hz
Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.3...0.5 Uc -40...158 °F (-40...70 °C) drop-out AC 50/60 Hz 0.8...1.15 Uc -40...131 °F (-40...55 °C) operational AC 50/60 Hz 1...1.15 Uc 131...158 °F (55...70 °C) operational AC 50/60 Hz
Inrush power in VA	280...350 VA 60 Hz cos phi 0.9 (at 68 °F (20 °C)) 280...350 VA 50 Hz cos phi 0.9 (at 68 °F (20 °C))
Hold-in power consumption in VA	2...18 VA 60 Hz cos phi 0.9 (at 68 °F (20 °C)) 2...18 VA 50 Hz cos phi 0.9 (at 68 °F (20 °C))
Heat dissipation	3...4.5 W at 50/60 Hz
Operating time	20...35 ms closing 40...75 ms opening
Maximum operating rate	1200 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...0.00 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...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) - cable stiffness: solid without cable end Power circuit: connector 1 0.02...0.19 in <sup>2</sup> (10...120 mm <sup>2</sup> ) - cable stiffness: flexible without cable end Power circuit: connector 2 0.02...0.08 in <sup>2</sup> (10...50 mm <sup>2</sup> ) - cable stiffness: flexible without cable end Power circuit: connector 1 0.02...0.19 in <sup>2</sup> (10...120 mm <sup>2</sup> ) - cable stiffness: flexible with cable end Power circuit: connector 2 0.02...0.08 in <sup>2</sup> (10...50 mm <sup>2</sup> ) - cable stiffness: flexible with cable end Power circuit: connector 1 0.02...0.19 in <sup>2</sup> (10...120 mm <sup>2</sup> ) - cable stiffness: solid without cable end Power circuit: connector 2 0.02...0.08 in <sup>2</sup> (10...50 mm <sup>2</sup> ) - cable stiffness: solid without cable end
Tightening torque	Control circuit 10.62 lbf.in (1.2 N.m) screw clamp terminals flat Ø 6 mm Control circuit 10.62 lbf.in (1.2 N.m) screw clamp terminals Philips No 2 Power circuit 106.21 lbf.in (12 N.m) connector hexagonal 0.16 in (4 mm) Control circuit 10.62 lbf.in (1.2 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 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	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
Product Certifications	BV[RETURN]DNV[RETURN]LROS (Lloyds register of shipping) [RETURN]CSA[RETURN]UL[RETURN]RINA[RETURN]CCC[RETURN]GOST[RETURN]GL[RE
IP degree of protection	IP20 front face IEC 60529
Protective treatment	THIEC 60068-2-30
Climatic withstand	IACS E10 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 6 Gn for 11 ms)
Height	6.22 in (158 mm)
Width	4.72 in (120 mm)
Depth	5.35 in (136 mm)
Net Weight	5.51 lb(US) (2.5 kg)

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	6.61 in (16.8 cm)
Package 1 Width	8.19 in (20.8 cm)
Package 1 Length	7.28 in (18.5 cm)
Package 1 Weight	5.38 lb(US) (2.44 kg)

## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	 <a href="#">REACH Declaration</a>
EU RoHS Directive	Compliant with Exemptions
Mercury free	Yes
China RoHS Regulation	 <a href="#">China RoHS Declaration</a>
RoHS exemption information	 Yes
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