

# LC1D25BL

IEC contactor, TeSys Deca, nonreversing, 25A, 15HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, low consumption 24VDC coil



## Main

Range of Product	TeSys Deca
Product or Component Type	Contacteur
Device short name	LC1D
Contacteur application	Motor control Resistive load
Utilisation category	AC-4 AC-3 AC-1 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	25 A (at <140 °F (60 °C)) at <= 440 V AC AC-3 for power circuit 40 A (at <140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit 25 A (at <140 °F (60 °C)) at <= 440 V AC AC-3e for power circuit
[Uc] control circuit voltage	24 V DC

## Complementary

Motor power kW	5.5 KW at 220...230 V AC 50/60 Hz (AC-3) 11 KW at 380...400 V AC 50/60 Hz (AC-3) 11 KW at 415...440 V AC 50/60 Hz (AC-3) 15 KW at 500 V AC 50/60 Hz (AC-3) 15 KW at 660...690 V AC 50/60 Hz (AC-3) 5.5 KW at 400 V AC 50/60 Hz (AC-4) 5.5 KW at 220...230 V AC 50/60 Hz (AC-3e) 11 KW at 380...400 V AC 50/60 Hz (AC-3e) 11 KW at 415...440 V AC 50/60 Hz (AC-3e) 15 KW at 500 V AC 50/60 Hz (AC-3e) 15 kW at 660...690 V AC 50/60 Hz (AC-3e)
Maximum Horse Power Rating	3 Hp at 230/240 V AC 50/60 Hz for 1 phase motors 2 Hp at 115 V AC 50/60 Hz for 1 phase motors 7.5 Hp at 230/240 V AC 50/60 Hz for 3 phase motors 15 Hp at 460/480 V AC 50/60 Hz for 3 phase motors 20 Hp at 575/600 V AC 50/60 Hz for 3 phase motors 7.5 hp at 200/208 V AC 50/60 Hz for 3 phase motors
Compatibility code	LC1D
Pole contact composition	3 NO
Contact compatibility	M5
Protective cover	With
[Ith] conventional free air thermal current	10 A (at 140 °F (60 °C)) for signalling circuit 40 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 60947-5-1 450 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	450 A at 440 V for power circuit conforming to IEC 60947

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[Icw] rated short-time withstand current	240 A 104 °F (40 °C) - 10 s for power circuit 380 A 104 °F (40 °C) - 1 s for power circuit 50 A 104 °F (40 °C) - 10 min for power circuit 120 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 63 A gG at ≤ 690 V coordination type 1 for power circuit 40 A gG at ≤ 690 V coordination type 2 for power circuit
Average impedance	2 mOhm - Ith 40 A 50 Hz for power circuit
Power dissipation per pole	3.2 W AC-1 1.25 W AC-3 1.25 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	1.65 Mcycles 25 A AC-3 ≤ 440 V 1.4 Mcycles 40 A AC-1 ≤ 440 V 1.65 Mcycles 25 A AC-3e ≤ 440 V
Control circuit type	DC low consumption
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 0.8...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	2.4 W 68 °F (20 °C))
Hold-in power consumption in W	2.4 W 68 °F (20 °C)
Operating time	77 ±15 % ms closing 25 ±20 % ms opening
Time constant	40 ms
Maximum operating rate	3600 cyc/h 140 °F (60 °C)
Connections - terminals	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 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: 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 clamp terminals 1 0.00...0.02 in <sup>2</sup> (2.5...10 mm <sup>2</sup> ) - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 2 0.00...0.02 in <sup>2</sup> (2.5...10 mm <sup>2</sup> ) - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 1 0.00...0.02 in <sup>2</sup> (1...10 mm <sup>2</sup> ) - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1.5...6 mm <sup>2</sup> ) - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 0.00...0.02 in <sup>2</sup> (1.5...10 mm <sup>2</sup> ) - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 0.00...0.02 in <sup>2</sup> (2.5...10 mm <sup>2</sup> ) - cable stiffness: 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 22.13 lbf.in (2.5 N.m) screw clamp terminals flat Ø 6 mm Power circuit 22.13 lbf.in (2.5 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 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 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 IEC 60335-1
Product Certifications	BV[RETURN]CSA[RETURN]JUL[RETURN]LROS (Lloyds register of shipping) [RETURN]CCC[RETURN]GOST[RETURN]GL[RETURN]DNV[RETURN]RINA[RETURN]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 closed 15 Gn for 11 ms) Shocks contactor open 8 Gn for 11 ms)
Height	3.35 in (85 mm)
Width	1.77 in (45 mm)
Depth	3.98 in (101 mm)
Net Weight	1.17 lb(US) (0.53 kg)

## Ordering and shipping details

Category	22354-CTR, TESYS D, OPEN, 9-38A AC
Discount Schedule	I12
GTIN	3389110361773
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	3.74 in (9.500 cm)
Package 1 Length	4.33 in (11.000 cm)
Package 1 Weight	21.02 oz (596.000 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	20.25 lb(US) (9.187 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	31.50 in (80.000 cm)
Package 3 Length	23.62 in (60.000 cm)
Package 3 Weight	341.70 lb(US) (154.992 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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Approximate Dimensions

