

LC1D25BNE

IEC contactor, TeSys Deca Green, nonreversing, 25A, 15HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, 24/60VAC/VDC coil



Main

Range	TeSys TeSys Deca
Range of Product	TeSys Deca
Product or Component Type	Contactor
Device short name	LC1D
Contactor application	Resistive load Motor control
Utilisation category	AC-3 AC-1 AC-3e
Poles description	3P
[Ue] rated operational voltage	Power circuit ≤ 690 V AC 25...400 Hz
[Ie] rated operational current	25 A (at <140 °F (60 °C)) at ≤ 440 V AC-3 for power circuit 40 A (at <140 °F (60 °C)) at ≤ 440 V AC-1 for power circuit 25 A (at <140 °F (60 °C)) at ≤ 440 V AC-3e for power circuit
[Uc] control circuit voltage	24...60 V AC 50/60 Hz 24...60 V DC

Complementary

Motor power kW	5.5 kW at 220...230 V AC 50 Hz (AC-3) 11 kW at 380...400 V AC 50 Hz (AC-3) 11 kW at 415 V AC 50 Hz (AC-3) 11 kW at 440 V AC 50 Hz (AC-3) 15 kW at 500 V AC 50 Hz (AC-3) 15 kW at 660...690 V AC 50 Hz (AC-3) 5.5 kW at 220...230 V AC 50 Hz (AC-3e) 11 kW at 380...400 V AC 50 Hz (AC-3e) 11 kW at 415 V AC 50 Hz (AC-3e) 11 kW at 440 V AC 50 Hz (AC-3e) 15 kW at 500 V AC 50 Hz (AC-3e) 15 kW at 660...690 V AC 50 Hz (AC-3e)
Maximum Horse Power Rating	2 Hp at 115 V AC 60 Hz for 1 phase motors 3 Hp at 230/240 V AC 60 Hz for 1 phase motors 7.5 Hp at 200/208 V AC 60 Hz for 3 phase motors 7.5 Hp at 230/240 V AC 60 Hz for 3 phase motors 15 Hp at 460/480 V AC 60 Hz for 3 phase motors 20 hp at 575/600 V AC 60 Hz for 3 phase motors
Compatibility code	LC1D
Pole contact composition	3 NO
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

[I _{cw}] rated short-time withstand current	100 A - 1 s for signalling circuit 120 A - 500 ms for signalling circuit 140 A - 100 ms for signalling circuit 50 A 104 °F (40 °C) - 10 min for power circuit 120 A 104 °F (40 °C) - 1 min for power circuit 240 A 104 °F (40 °C) - 10 s for power circuit 380 A 104 °F (40 °C) - 1 s for power 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 - I _{th} 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
[U _i] rated insulation voltage	Power circuit 690 V IEC 60947-4-1 Signalling circuit 690 V IEC 60947-1
Overvoltage category	III
Pollution degree	3
[U _{imp}] 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	15 Mcycles
Electrical durability	2 Mcycles 21 A AC-3 ≤ 440 V 0.9 Mcycles 40 A AC-1 ≤ 440 V 2 Mcycles 21 A AC-3e ≤ 440 V
Control circuit type	AC/DC 50/60 Hz AC/DC electronic
Coil technology	Built-in bidirectional peak limiting
Control circuit voltage limits	≤ 0.1 U _c -40...158 °F (-40...70 °C) drop-out AC/DC 0.85...1.1 U _c -40...140 °F (-40...60 °C) operational AC 0.8...1.1 U _c -40...140 °F (-40...60 °C) operational DC 1...1.1 U _c 140...158 °F (60...70 °C) operational AC/DC
Inrush power in VA	15 VA 50/60 Hz (at 68 °F (20 °C))
Inrush power in W	14 W 68 °F (20 °C))
Hold-in power consumption in VA	0.9 VA 50/60 Hz (at 68 °F (20 °C))
Hold-in power consumption in W	0.6 W 68 °F (20 °C)
Heat dissipation	0.6 W at 50/60 Hz
Operating time	45...55 ms closing 20...90 ms opening
Maximum operating rate	3600 cyc/h 140 °F (60 °C)
Maximum operating rate	3600 cyc/h at 60 °C
Connections - terminals	Control circuit: screw clamp terminals 1 0.002...0.006 in ² (1...4 mm ²) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 0.002...0.006 in ² (1...4 mm ²) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 0.002...0.006 in ² (1...4 mm ²) - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 0.002...0.004 in ² (1...2.5 mm ²) - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 0.002...0.006 in ² (1...4 mm ²) - cable stiffness: solid Control circuit: screw clamp terminals 2 0.002...0.006 in ² (1...4 mm ²) - cable stiffness: solid Power circuit: screw clamp terminals 1 0.004...0.02 in ² (2.5...10 mm ²) - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 2 0.004...0.02 in ² (2.5...10 mm ²) - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 1 0.002...0.02 in ² (1...10 mm ²) - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 0.002...0.009 in ² (1.5...6 mm ²) - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 0.002...0.02 in ² (1.5...10 mm ²) - cable stiffness: solid Power circuit: screw clamp terminals 2 0.004...0.02 in ² (2.5...10 mm ²) - cable stiffness: solid
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 22.1 lbf.in (2.5 N.m) screw clamp terminals flat Ø 6 mm Power circuit 22.1 lbf.in (2.5 N.m) screw clamp terminals Philips No 2 Power circuit 22.1 lbf.in (2.5 N.m) screw clamp terminals pozidriv No 2 M4 Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2 M3.5

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	EN/IEC 60947-4-1 EN/IEC 60947-5-1 UL 60947-4-1 CSA C22.2 No 60947-4-1 IEC 60335-1
Product Certifications	CCC[RETURN]CSA[RETURN]EAC[RETURN]UL[RETURN]KC[RETURN]DNV-GL[RETURN]LROS (Lloyds register of shipping)[RETURN]UKCA
IP degree of protection	IP20 front face IEC 60529
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	3.3 in (85 mm)
Width	1.8 in (45 mm)
Depth	3.6 in (92 mm)
Net Weight	0.955 lb(US) (0.433 kg)

Ordering and shipping details

Category	US10I1222356
Discount Schedule	0I12
GTIN	3606480987724
Returnability	Yes
Country of origin	FR

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	2.165 in (5.500 cm)
Package 1 Width	3.740 in (9.500 cm)
Package 1 Length	4.724 in (12.000 cm)
Package 1 Weight	16.155 oz (458.000 g)
Unit Type of Package 2	S02
Number of Units in Package 2	15
Package 2 Height	5.906 in (15.000 cm)
Package 2 Width	11.811 in (30.000 cm)
Package 2 Length	15.748 in (40.000 cm)
Package 2 Weight	15.785 lb(US) (7.160 kg)

Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	 REACH Declaration
EU RoHS Directive	Compliant with Exemptions
Mercury free	Yes
Sustainable packaging	Yes
China RoHS Regulation	 China RoHS Declaration
RoHS exemption information	 Yes
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.
Halogen content performance	Halogen free plastic parts & cables product

Contractual warranty

Warranty	18 months
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