

LC1D18B7

IEC contactor, TeSys Deca, nonreversing, 18A, 10HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, 24VAC 50/60Hz coil, open



Main

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| Range of Product | TeSys Deca |
| Product or Component Type | Contactors |
| Device short name | LC1D |
| Contactors application | Resistive load Motor control |
| Utilisation category | AC-1 AC-4 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 | 18 A (at <140 °F (60 °C)) at <= 440 V AC AC-3 for power circuit 32 A (at <140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit 18 A (at <140 °F (60 °C)) at <= 440 V AC AC-3e for power circuit |
| [Uc] control circuit voltage | 24 V AC 50/60 Hz |

Complementary

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|---|---|
| Motor power kW | 4 KW at 220...230 V AC 50/60 Hz (AC-3) 7.5 KW at 380...400 V AC 50/60 Hz (AC-3) 9 KW at 415...440 V AC 50/60 Hz (AC-3) 10 KW at 500 V AC 50/60 Hz (AC-3) 10 KW at 660...690 V AC 50/60 Hz (AC-3) 4 KW at 400 V AC 50/60 Hz (AC-4) 4 KW at 220...230 V AC 50/60 Hz (AC-3e) 7.5 KW at 380...400 V AC 50/60 Hz (AC-3e) 9 KW at 415...440 V AC 50/60 Hz (AC-3e) 10 KW at 500 V AC 50/60 Hz (AC-3e) 10 kW at 660...690 V AC 50/60 Hz (AC-3e) |
| Maximum Horse Power Rating | 1 Hp at 115 V AC 50/60 Hz for 1 phase motors 3 Hp at 230/240 V AC 50/60 Hz for 1 phase motors 5 Hp at 200/208 V AC 50/60 Hz for 3 phase motors 5 Hp at 230/240 V AC 50/60 Hz for 3 phase motors 10 Hp at 460/480 V AC 50/60 Hz for 3 phase motors 15 hp at 575/600 V AC 50/60 Hz for 3 phase motors |
| Compatibility code | LC1D |
| Pole contact composition | 3 NO |
| Contact compatibility | M2 |
| Protective cover | With |
| [Ith] conventional free air thermal current | 10 A (at 140 °F (60 °C)) for signalling circuit 32 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 60947-5-1 300 A at 440 V for power circuit conforming to IEC 60947 |
| Rated breaking capacity | 300 A at 440 V for power circuit conforming to IEC 60947 |

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| [I _{cw}] rated short-time withstand current | 145 A 104 °F (40 °C) - 10 s for power circuit 240 A 104 °F (40 °C) - 1 s for power circuit 40 A 104 °F (40 °C) - 10 min for power circuit 84 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 50 A gG at ≤ 690 V coordination type 1 for power circuit 35 A gG at ≤ 690 V coordination type 2 for power circuit |
| Average impedance | 2.5 mOhm - Ith 32 A 50 Hz for power circuit |
| Power dissipation per pole | 2.5 W AC-1 0.8 W AC-3 0.8 W AC-3e |
| [U _i] 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 |
| [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 | 1.65 Mcycles 18 A AC-3 ≤ 440 V 1 Mcycles 32 A AC-1 ≤ 440 V 1.65 Mcycles 18 A AC-3e ≤ 440 V |
| Control circuit type | AC 50/60 Hz standard |
| Coil technology | Without built-in suppressor module |
| Control circuit voltage limits | 0.3...0.6 U _c -40...158 °F (-40...70 °C) drop-out AC 50/60 Hz 0.8...1.1 U _c -40...140 °F (-40...60 °C) operational AC 50 Hz 0.85...1.1 U _c -40...140 °F (-40...60 °C) operational AC 60 Hz 1...1.1 U _c 140...158 °F (60...70 °C) operational AC 50/60 Hz |
| Inrush power in VA | 70 VA 60 Hz cos phi 0.75 (at 68 °F (20 °C)) 70 VA 50 Hz cos phi 0.75 (at 68 °F (20 °C)) |
| Hold-in power consumption in VA | 7.5 VA 60 Hz cos phi 0.3 (at 68 °F (20 °C)) 7 VA 50 Hz cos phi 0.3 (at 68 °F (20 °C)) |
| Heat dissipation | 2...3 W at 50/60 Hz |
| Operating time | 12...22 ms closing 4...19 ms opening |
| Maximum operating rate | 3600 cyc/h 140 °F (60 °C) |
| Connections - terminals | Control circuit: screw clamp terminals 1 0.00...0.01 in ² (1...4 mm ²) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 0.00...0.01 in ² (1...4 mm ²) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 0.00...0.01 in ² (1...4 mm ²) - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 0.00...0.00 in ² (1...2.5 mm ²) - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 0.00...0.01 in ² (1...4 mm ²) - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 0.00...0.01 in ² (1...4 mm ²) - cable stiffness: solid without cable end Power circuit: screw clamp terminals 1 0.00...0.01 in ² (1.5...6 mm ²) - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 2 0.00...0.01 in ² (1.5...6 mm ²) - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 1 0.00...0.01 in ² (1...6 mm ²) - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 0.00...0.01 in ² (1...4 mm ²) - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 0.00...0.01 in ² (1.5...6 mm ²) - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 0.00...0.01 in ² (1.5...6 mm ²) - cable stiffness: solid without cable end |

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| 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 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 | Rail Plate |

Environment

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| 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 | GOST[RETURN]CCC[RETURN]CSA[RETURN]UL[RETURN]RINA[RETURN]BV[RETURN]LR (Lloyds register of shipping)[RETURN]DNV[RETURN]GL[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 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 | 3.39 in (86 mm) |
| Net Weight | 0.73 lb(US) (0.33 kg) |

Ordering and shipping details

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|-------------------|---------------|
| Category | US10I1222354 |
| Discount Schedule | 0I12 |
| GTIN | 3389110349399 |
| Returnability | Yes |
| Country of origin | ID |

Packing Units

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|------------------------------|----------------------|
| 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 | 3.54 in (9.000 cm) |
| Package 1 Length | 4.33 in (11.000 cm) |
| Package 1 Weight | 12.66 oz (359.000 g) |
| Unit Type of Package 2 | S02 |

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|------------------------------|----------------------------|
| Number of Units in Package 2 | 20 |
| 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 | 16.37 lb(US) (7.427 kg) |
| Unit Type of Package 3 | P06 |
| Number of Units in Package 3 | 320 |
| 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 | 279.62 lb(US) (126.832 kg) |

Offer Sustainability

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|----------------------------|---|
| 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 |
| REACH free of SVHC | Yes |
| EU RoHS Directive | Compliant EU RoHS Declaration |
| Toxic heavy metal free | Yes |
| Mercury free | 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. |
| PVC free | Yes |

Contractual warranty

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| Warranty | 18 months |
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Dimensions



- (1) Including LAD 4BB
(2) Minimum electrical clearance

| LC1 | | D09...D18 | D093...D123 | D099...D129 |
|-----------------|------------------------------------|--------------------|----------------------|-------------|
| b | without add-on blocks | 77 | 99 | 80 |
| b1 | with LAD 4BB | 94 | 107 | 95.5 |
| with LA4 D•2 | 110 ⁽¹⁾ | 123 ⁽¹⁾ | 111.5 ⁽¹⁾ | |
| with LA4 DF, DT | 119 ⁽¹⁾ | 132 ⁽¹⁾ | 120.5 ⁽¹⁾ | |
| with LA4 DW, DL | 126 ⁽¹⁾ | 139 ⁽¹⁾ | 127.5 ⁽¹⁾ | |
| c | without cover or add-on blocks | 84 | 84 | 84 |
| | with cover, without add-on blocks | 86 | 86 | |
| c1 | with LAD N or C (2 or 4 contacts) | 117 | 117 | 117 |
| c2 | with LA6 DK10, LAD 6K10 | 129 | 129 | 129 |
| c3 | with LAD T, R, S | 137 | 137 | 137 |
| | with LAD T, R, S and sealing cover | 141 | 141 | |
| (1) | Including LAD 4BB. | | | |

Wiring

