

LC1D80E7

IEC contactor, TeSys Deca, nonreversing, 80A, 60HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, 48VAC 50/60Hz coil, open



Main

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|--------------------------------|--|
| Range | TeSys |
| Range of Product | TeSys Deca |
| Product or Component Type | Contacteur |
| Device short name | LC1D |
| Contacteur application | Motor control Resistive load |
| Utilisation category | AC-3 AC-3e AC-4 AC-1 |
| Poles description | 3P |
| [Ue] rated operational voltage | Power circuit <= 300 V DC 25...400 Hz Power circuit <= 690 V AC |
| [Ie] rated operational current | 125 A (at <140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit 80 A (at <140 °F (60 °C)) at <= 440 V AC AC-3 for power circuit 80 A (at <140 °F (60 °C)) at <= 440 V AC-3e for power circuit |
| [Uc] control circuit voltage | 48 V AC 50/60 Hz |

Complementary

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| Motor power kW | 22 kW at 220...230 V AC 50/60 Hz (AC-3) 37 kW at 380...400 V AC 50/60 Hz (AC-3) 45 kW at 415...440 V AC 50/60 Hz (AC-3) 55 kW at 500 V AC 50/60 Hz (AC-3) 45 kW at 660...690 V AC 50/60 Hz (AC-3) 15 kW at 400 V AC 50/60 Hz (AC-4) 22 kW at 220...230 V AC 50/60 Hz (AC-3e) 37 kW at 380...400 V AC 50/60 Hz (AC-3e) 45 kW at 415...440 V AC 50/60 Hz (AC-3e) 55 kW at 500 V AC 50/60 Hz (AC-3e) 45 kW at 660...690 V AC 50/60 Hz (AC-3e) |
| Maximum Horse Power Rating | 7.5 Hp at 120 V AC 50/60 Hz for 1 phase motors 15 Hp at 230/240 V AC 50/60 Hz for 1 phase motors 30 Hp at 200/208 V AC 50/60 Hz for 3 phase motors 30 Hp at 230/240 V AC 50/60 Hz for 3 phase motors 60 Hp at 460/480 V AC 50/60 Hz for 3 phase motors 60 hp at 575/600 V AC 50/60 Hz for 3 phase motors |
| Compatibility code | LC1D |
| Pole contact composition | 3 NO |
| Contact compatibility | M11 |
| Protective cover | With |
| [Ith] conventional free air thermal current | 10 A (at 140 °F (60 °C)) for signalling circuit 125 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 1100 A at 440 V for power circuit conforming to IEC 60947 |
| Rated breaking capacity | 1100 A at 440 V for power circuit conforming to IEC 60947 |

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

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| [I _{cw}] rated short-time withstand current | 640 A 104 °F (40 °C) - 10 s for power circuit 990 A 104 °F (40 °C) - 1 s for power circuit 135 A 104 °F (40 °C) - 10 min for power circuit 320 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 60947-5-1 200 A gG at ≤ 690 V coordination type 1 for power circuit 160 A gG at ≤ 690 V coordination type 2 for power circuit |
| Average impedance | 0.8 mOhm - I _{th} 125 A 50 Hz for power circuit |
| Power dissipation per pole | 5.1 W AC-3 12.5 W AC-1 5.1 W AC-3e |
| [U _i] rated insulation voltage | Power circuit 600 V CSA[RETURN]Power circuit 600 V UL[RETURN]Power circuit 1000 V IEC 60947-4-1[RETURN]Signalling circuit 690 V IEC 60947-1[RETURN]Signalling circuit 600 V CSA[RETURN]Signalling circuit 600 V UL |
| Overvoltage category | III |
| Pollution degree | 3 |
| [U _{imp}] rated impulse withstand voltage | 8 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 | 4 Mcycles |
| Electrical durability | 0.8 Mcycles 125 A AC-1 ≤ 440 V 1.5 Mcycles 80 A AC-3 ≤ 440 V 1.5 Mcycles 80 A AC-3e ≤ 440 V |
| Control circuit type | AC 50/60 Hz standard |
| Coil technology | Without built-in suppressor module |
| Control circuit voltage limits | 0.85...1.1 U _c -40...131 °F (-40...55 °C) operational AC 60 Hz 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...131 °F (-40...55 °C) operational AC 50 Hz 1...1.1 U _c 131...158 °F (55...70 °C) operational AC 50/60 Hz |
| Inrush power in VA | 245 VA 60 Hz cos phi 0.75 (at 68 °F (20 °C)) 245 VA 50 Hz cos phi 0.75 (at 68 °F (20 °C)) |
| Hold-in power consumption in VA | 26 VA 60 Hz cos phi 0.3 (at 68 °F (20 °C)) 26 VA 50 Hz cos phi 0.3 (at 68 °F (20 °C)) |
| Heat dissipation | 6...10 W at 50/60 Hz |
| Operating time | 20...35 ms closing 6...20 ms opening |
| Maximum operating rate | 3600 cyc/h 140 °F (60 °C) |
| Connections - terminals | 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...0.00 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: 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: 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: connector 1 0.01...0.08 in ² (4...50 mm ²) - cable stiffness: flexible without cable end Power circuit: connector 2 0.01...0.04 in ² (4...25 mm ²) - cable stiffness: flexible without cable end Power circuit: connector 1 0.01...0.08 in ² (4...50 mm ²) - cable stiffness: flexible with cable end Power circuit: connector 2 0.01...0.02 in ² (4...16 mm ²) - cable stiffness: flexible with cable end Power circuit: connector 1 0.01...0.08 in ² (4...50 mm ²) - cable stiffness: solid without cable end Power circuit: connector 2 0.01...0.04 in ² (4...25 mm ²) - 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 flat Ø 6 to Ø 8 mm 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 |

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|------------------------------|---|
| 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

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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 |
| Product Certifications | CSA[RETURN]BV[RETURN]UL[RETURN]GOST[RETURN]RINA[RETURN]CCC[RETURN]GL (Lloyds register of shipping)[RETURN]DNV |
| 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) Shocks contactor open 8 Gn for 11 ms) Vibrations contactor closed 3 Gn, 5...300 Hz) Shocks contactor closed 10 Gn for 11 ms) |
| Height | 5.00 in (127 mm) |
| Width | 3.35 in (85 mm) |
| Depth | 5.12 in (130 mm) |
| Net Weight | 3.51 lb(US) (1.59 kg) |

Ordering and shipping details

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|-------------------|--------------------------------------|
| Category | 22359-CTR,TESYS D,OPEN,80-150A AC&DC |
| Discount Schedule | I12 |
| GTIN | 3389110440522 |
| Returnability | No |
| Country of origin | CZ |

Packing Units

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|------------------------------|-------------------------|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Height | 6.30 in (16.000 cm) |
| Package 1 Width | 5.31 in (13.500 cm) |
| Package 1 Length | 3.74 in (9.500 cm) |
| Package 1 Weight | 3.43 lb(US) (1.554 kg) |
| Unit Type of Package 2 | S02 |
| Number of Units in Package 2 | 5 |
| Package 2 Height | 5.91 in (15 cm) |
| Package 2 Width | 11.81 in (30 cm) |
| Package 2 Length | 15.75 in (40 cm) |
| Package 2 Weight | 17.82 lb(US) (8.085 kg) |
| Unit Type of Package 3 | P06 |
| Number of Units in Package 3 | 80 |

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| 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 | 293.61 lb(US) (133.180 kg) |

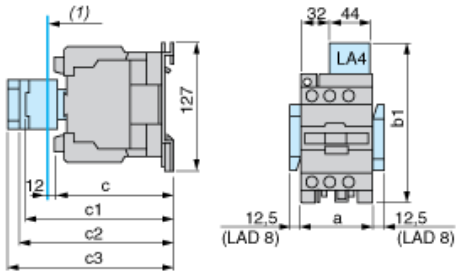
Offer Sustainability

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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 | No need of specific recycling operations |
| 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) Minimum electrical clearance

| LC1 | | D80 | D95 |
|------------------------------------|--------------------------------|-----|-----|
| a | | 85 | 85 |
| b1 | with LA4 D•2 | 135 | 135 |
| with LA4 DB3 or LAD 4BB3 | 135 | – | |
| with LA4 DF, DT | 142 | 142 | |
| with LA4 DM, DW, DL | 150 | 150 | |
| c | without cover or add-on blocks | 125 | 125 |
| with cover, without add-on blocks | 130 | 130 | |
| c1 | with LAD N (1 contact) | 150 | 150 |
| with LAD N or C (2 or 4 contacts) | 158 | 158 | |
| c2 | with LA6 DK10, LAD 6DK | 170 | 170 |
| c3 | with LAD T, R, S | 178 | 178 |
| with LAD T, R, S and sealing cover | 182 | 182 | |

Wiring

