

LC1D80P7

IEC contactor, TeSys D, nonreversing, 80A,
60HP at 480VAC, up to 100kA SCCR, 3 phase,
3 NO, 230VAC 50/60Hz coil, open





Main

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| Range | TeSys |
| Product name | TeSys D |
| Product or component type | Contacteur |
| Device short name | LC1D |
| Contactor application | Resistive load Motor control |
| Utilisation category | AC-4 AC-3 AC-1 |
| Poles description | 3P |
| Power pole contact composition | 3 NO |
| [Ue] rated operational voltage | Power circuit: <= 300 V DC 25...400 Hz Power circuit: <= 690 V AC |
| [Ie] rated operational current | 125 A 140 °F (60 °C)) <= 440 V AC AC-1 power circuit 80 A 140 °F (60 °C)) <= 440 V AC AC-3 power circuit |
| Motor power kW | 22 KW 220...230 V AC 50/60 Hz AC-3) 37 KW 380...400 V AC 50/60 Hz AC-3) 45 KW 415...440 V AC 50/60 Hz AC-3) 55 KW 500 V AC 50/60 Hz AC-3) 45 KW 660...690 V AC 50/60 Hz AC-3) 45 KW 1000 V AC 50/60 Hz AC-3) 15 kW 400 V AC 50/60 Hz AC-4) |
| Motor power HP (UL / CSA) | 20 Hp 200/208 V at AC 50/60 Hz for 3 phase 7.5 Hp 115 V at AC 50/60 Hz for 1 phase 15 Hp 230/240 V at AC 50/60 Hz for 1 phase 25 Hp 230/240 V at AC 50/60 Hz for 3 phase 60 Hp 460/480 V at AC 50/60 Hz for 3 phase 60 hp 575/600 V at AC 50/60 Hz for 3 phase |
| Control circuit type | AC 50/60 Hz |
| [Uc] control circuit voltage | 230 V AC 50/60 Hz |
| Auxiliary contact composition | 1 NO + 1 NC |
| [Uimp] rated impulse withstand voltage | 8 kV IEC 60947 |
| Overvoltage category | III |
| [Ith] conventional free air thermal current | 10 A 140 °F (60 °C) signalling circuit 125 A 140 °F (60 °C) power circuit |
| Irms rated making capacity | 140 A AC signalling circuit IEC 60947-5-1 250 A DC signalling circuit IEC 60947-5-1 1100 A 440 V power circuit IEC 60947 |
| Rated breaking capacity | 1100 A 440 V power circuit IEC 60947 |
| [Icw] rated short-time withstand current | 640 A 104 °F (40 °C) - 10 s power circuit 990 A 104 °F (40 °C) - 1 s power circuit 135 A 104 °F (40 °C) - 10 min power circuit 320 A 104 °F (40 °C) - 1 min power circuit 100 A - 1 s signalling circuit 120 A - 500 ms signalling circuit 140 A - 100 ms signalling circuit |
| Associated fuse rating | 10 A gG signalling circuit IEC 60947-5-1 200 A gG <= 690 V type 1 power circuit 160 A gG <= 690 V type 2 power circuit |
| Average impedance | 0.8 mOhm - Ith 125 A 50 Hz power circuit |
| [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 |
| Electrical durability | 0.8 Mcycles 125 A AC-1 <= 440 V 1.5 Mcycles 80 A AC-3 <= 440 V |

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| Power dissipation per pole | 5.1 W AC-3 12.5 W AC-1 |
| Front cover | With |
| Mounting support | Rail Plate |
| 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 | DNV LROS (Lloyds register of shipping) GOST CCC GL RINA BV CSA UL |
| Connections - terminals | Control circuit screw clamp terminals 2 0.00...0.00 in ² (1...2.5 mm ²)flexible with cable end Control circuit screw clamp terminals 1 0.00...0.00 in ² (1...2.5 mm ²)flexible with cable end Control circuit screw clamp terminals 1 0.00...0.01 in ² (1...4 mm ²)flexible without cable end Control circuit screw clamp terminals 2 0.00...0.01 in ² (1...4 mm ²)flexible without cable end Control circuit screw clamp terminals 1 0.00...0.01 in ² (1...4 mm ²)solid without cable end Control circuit screw clamp terminals 2 0.00...0.01 in ² (1...4 mm ²)solid without cable end Power circuit connector 1 0.01...0.08 in ² (4...50 mm ²)flexible without cable end Power circuit connector 2 0.01...0.04 in ² (4...25 mm ²)flexible without cable end Power circuit connector 1 0.01...0.08 in ² (4...50 mm ²)flexible with cable end Power circuit connector 2 0.01...0.02 in ² (4...16 mm ²)flexible with cable end Power circuit connector 1 0.01...0.08 in ² (4...50 mm ²)solid without cable end Power circuit connector 2 0.01...0.04 in ² (4...25 mm ²)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) |
| Operating time | 20...35 ms closing 6...20 ms opening |
| 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 |
| Maximum operating rate | 3600 cyc/h 140 °F (60 °C) |

Complementary

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|---------------------------------|---|
| 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 0.75 68 °F (20 °C)) 245 VA 50 Hz 0.75 68 °F (20 °C)) |
| Hold-in power consumption in VA | 26 VA 60 Hz 0.3 68 °F (20 °C)) 26 VA 50 Hz 0.3 68 °F (20 °C)) |
| Heat dissipation | 6...10 W 50/60 Hz |

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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 current | 5 mA signalling circuit |
| Minimum switching voltage | 17 V 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 |
| Insulation resistance | > 10 MOhm signalling circuit |

Environment

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|---------------------------------------|---|
| IP degree of protection | IP20 front face IEC 60529 |
| Protective treatment | TH IEC 60068-2-30 |
| Pollution degree | 3 |
| Ambient air temperature for operation | -40...140 °F (-40...60 °C) 140...158 °F (60...70 °C) with derating |
| Ambient air temperature for storage | -76...176 °F (-60...80 °C) |
| 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 | 00785901799603 |
| Nbr. of units in pkg. | 1 |
| Package weight(Lbs) | 1 lb(US) (0.45 kg) |
| Returnability | No |
| Country of origin | CZ |

Packing Units

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|------------------------------|---------------------------|
| Unit Type of Package 1 | PCE |
| Package 1 Height | 3.70 in (9.4 cm) |
| Package 1 width | 5.20 in (13.2 cm) |
| Package 1 Length | 5.59 in (14.2 cm) |
| Unit Type of Package 2 | S02 |
| Number of Units in Package 2 | 5 |
| Package 2 Weight | 18.16 lb(US) (8.235 kg) |
| Package 2 Height | 5.91 in (15 cm) |
| Package 2 width | 11.81 in (30 cm) |
| Package 2 Length | 15.75 in (40 cm) |
| Unit Type of Package 3 | P06 |
| Number of Units in Package 3 | 80 |
| Package 3 Weight | 309.04 lb(US) (140.18 kg) |
| Package 3 Height | 31.50 in (80 cm) |
| Package 3 width | 31.50 in (80 cm) |
| Package 3 Length | 23.62 in (60 cm) |

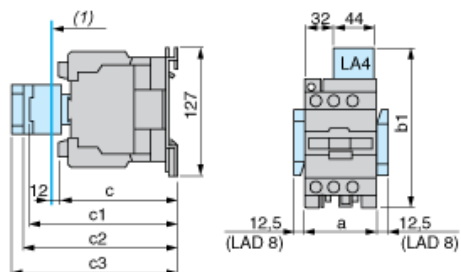
Offer Sustainability

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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 free of SVHC | Yes |
| EU RoHS Directive | Compliant EU RoHS Declaration |
| Toxic heavy metal free | Yes |
| Mercury free | Yes |
| RoHS exemption information | Yes |
| China RoHS Regulation | China RoHS Declaration |
| Environmental Disclosure | Product Environmental Profile |
| 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 | – | |
| | with LA4 DF, DT | 142 | |
| | with LA4 DM, DW, DL | 150 | |
| c | without cover or add-on blocks | 125 | 125 |
| | with cover, without add-on blocks | 130 | |
| c1 | with LAD N (1 contact) | 150 | 150 |
| | with LAD N or C (2 or 4 contacts) | 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 | |

Wiring

