

Product data sheet

Specifications



Contactor, TeSys Deca, 3P(3NO),
AC-3/AC-3e, <=440V, 80A, 120V
DC standard coil, screw clamp
terminals

LC1D80GD

Main

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|--------------------------------|--|
| Range | TeSys |
| Range Of Product | TeSys Deca |
| Product Or Component Type | Contactor |
| Device Short Name | LC1D |
| Contactor 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 <60 °C) at <= 440 V AC AC-1 for power circuit 80 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 80 A (at <60 °C) at <= 440 V AC AC-3e for power circuit |
| [Uc] Control Circuit Voltage | 125 V DC |

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) |
| Motor Power Hp | 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 phases motors 30 hp at 230/240 V AC 50/60 Hz for 3 phases motors 60 hp at 460/480 V AC 50/60 Hz for 3 phases motors 60 hp at 575/600 V AC 50/60 Hz for 3 phases motors |
| Compatibility Code | LC1D |
| Pole Contact Composition | 3 NO |
| Protective Cover | With |
| [Ith] Conventional Free Air Thermal Current | 10 A (at 60 °C) for signalling circuit 125 A (at 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 |

Disclaimer: 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

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| Rated Breaking Capacity | 1100 A at 440 V for power circuit conforming to IEC 60947 |
| [Icw] Rated Short-Time Withstand Current | 640 A 40 °C - 10 s for power circuit 990 A 40 °C - 1 s for power circuit 135 A 40 °C - 10 min for power circuit 320 A 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 - Ith 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 |
| [Ui] Rated Insulation Voltage | Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Power circuit: 1000 V conforming to IEC 60947-4-1 Signalling circuit: 690 V conforming to IEC 60947-1 Signalling circuit: 600 V CSA certified Signalling circuit: 600 V UL certified |
| Overvoltage Category | III |
| Pollution Degree | 3 |
| [Uimp] Rated Impulse Withstand Voltage | 8 kV conforming to IEC 60947 |
| Safety Reliability Level | B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 |
| Mechanical Durability | 4 Mcycles |
| Electrical Durability | 0.8 Mcycles 125 A AC-1 at Ue ≤ 440 V 1.5 Mcycles 80 A AC-3 at Ue ≤ 440 V 1.5 Mcycles 80 A AC-3e at Ue ≤ 440 V |
| Control Circuit Type | DC standard |
| Coil Technology | Without built-in suppressor module |
| Control Circuit Voltage Limits | 0.1...0.3 Uc (-40...70 °C):drop-out DC 0.85...1.1 Uc (-40...55 °C):operational DC 1...1.1 Uc (55...70 °C):operational DC |
| Inrush Power In W | 22 W (at 20 °C) |
| Hold-In Power Consumption In W | 22 W at 20 °C |
| Operating Time | 95...130 ms closing 20...35 ms opening |
| Time Constant | 75 ms |
| Maximum Operating Rate | 3600 cyc/h 60 °C |
| Connections - Terminals | Control circuit: screw clamp terminals 2 1...2.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1...2.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1...4 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 1...4 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 1...4 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 1...4 mm² - cable stiffness: solid without cable end Power circuit: connector 1 4...50 mm² - cable stiffness: flexible without cable end Power circuit: connector 2 4...25 mm² - cable stiffness: flexible without cable end Power circuit: connector 1 4...50 mm² - cable stiffness: flexible with cable end Power circuit: connector 2 4...16 mm² - cable stiffness: flexible with cable end Power circuit: connector 1 4...50 mm² - cable stiffness: solid without cable end Power circuit: connector 2 4...25 mm² - cable stiffness: solid without cable end |

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| Tightening Torque | Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver Philips No 2 Power circuit: 12 N.m - on connector - with screwdriver flat Ø 6 to Ø 8 mm Power circuit: 12 N.m - on connector hexagonal screw head 4 mm Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver pozidriv No 2 |
| Auxiliary Contact Composition | 1 NO + 1 NC |
| Auxiliary Contacts Type | type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1 type mirror contact 1 NC conforming to 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 |
| Product Certifications | RINA CCC CSA DNV GOST LROS (Lloyds register of shipping) UL BV GL |
| Ip Degree Of Protection | IP20 front face conforming to IEC 60529 |
| Protective Treatment | TH conforming to IEC 60068-2-30 |
| Climatic Withstand | conforming to IACS E10 exposure to damp heat |
| Permissible Ambient Air Temperature Around The Device | -40...60 °C 60...70 °C with derating |
| Operating Altitude | 0...3000 m |
| Fire Resistance | 850 °C conforming to 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 | 127 mm |
| Width | 85 mm |
| Depth | 186 mm |
| Net Weight | 2.59 kg |

Packing Units

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|------------------------------|-----|
| Unit Type Of Package 1 | PCE |
| Number Of Units In Package 1 | 1 |

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|------------------------------|-----------|
| Package 1 Height | 21.000 cm |
| Package 1 Width | 10.000 cm |
| Package 1 Length | 14.000 cm |
| Package 1 Weight | 2.580 kg |
| Unit Type Of Package 2 | S02 |
| Number Of Units In Package 2 | 3 |
| Package 2 Height | 15.000 cm |
| Package 2 Width | 30.000 cm |
| Package 2 Length | 40.000 cm |
| Package 2 Weight | 8.195 kg |

Contractual warranty

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| Warranty | 18 months |
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Sustainability

Green Premium™ label is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO₂ products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

[Guide to assess a product's sustainability >](#)



Transparency RoHS/REACH

Well-being performance

✓ Reach Free Of Svhc

✓ Toxic Heavy Metal Free

✓ Mercury Free

✓ Rohs Exemption Information Yes

✓ Pvc Free

Certifications & Standards

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|---------------------------|---|
| Reach Regulation | REACH Declaration |
| Eu Rohs Directive | Compliant EU RoHS Declaration |
| China Rohs Regulation | China RoHS declaration Pro-active China RoHS declaration (out of China RoHS legal scope) |
| 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 |
| Circularity Profile | No need of specific recycling operations |
| 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 |