

LC2D50G6

reversing contactor TeSys LC2-D - 3 poles -
AC-3 440 V 50 A - coil 120 V AC



Main

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| Range of product | TeSys D |
| Product or component type | Reversing contactor |
| Device short name | LC2D |
| Contact application | Motor control |
| Utilisation category | AC-2 AC-3 AC-4 |
| Control circuit type | AC |
| Coil type | Standard |
| Poles description | 3P |
| Pole contact composition | 3 NO |
| [Ie] rated operational current | Power circuit: 50 A AC AC-3 (at <60 °C) |
| Motor power kW | 15 kW at 220...240 V AC 50/60 Hz 22 kW at 380...400 V AC 50/60 Hz 25 kW at 415 V AC 50/60 Hz 30 kW at 440 V AC 50/60 Hz 30 kW at 500 V AC 50/60 Hz 33 kW at 660...690 V AC 50/60 Hz |
| [Uc] control circuit voltage | 120 V AC 60 Hz |
| Connections - terminals | Control circuit: 1 cable(s) 1...4 mm ² flexible with cable end Control circuit: 1 cable(s) 1...4 mm ² flexible without cable end Control circuit: 1 cable(s) 1...4 mm ² solid without cable end Control circuit: 2 cable(s) 1...2.5 mm ² flexible with cable end Control circuit: 2 cable(s) 1...4 mm ² flexible without cable end Control circuit: 2 cable(s) 1...4 mm ² solid without cable end Power circuit: 1 cable(s) 1...35 mm ² flexible with cable end Power circuit: 1 cable(s) 1...35 mm ² flexible without cable end Power circuit: 1 cable(s) 1...35 mm ² solid without cable end Power circuit: 2 cable(s) 1...25 mm ² flexible with cable end Power circuit: 2 cable(s) 1...25 mm ² flexible without cable end Power circuit: 2 cable(s) 1...25 mm ² solid without cable end Power circuit: 2 cable(s) 1...35 mm ² flexible with cable end Power circuit: 2 cable(s) 1...35 mm ² flexible without cable end Power circuit: 2 cable(s) 1...35 mm ² solid without cable end |

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Complementary

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| Assembly style | Ready assembled |
| Coil technology | Without built-in bidirectional peak limiting diode suppressor |
| Protective cover | With |
| 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 |
| Auxiliary contact composition | 1 NO + 1 NC |
| Interlocking type | Mechanical |
| Control circuit voltage limits | Drop-out: 0.3...0.6 U _c at 50/60 Hz (at <60 °C) Operational: 0.8...1.1 U _c at 50 Hz (at <60 °C) Operational: 0.85...1.1 U _c at 60 Hz (at <60 °C) |
| [U _i] rated insulation voltage | Control circuit: 600 V CSA certified Control circuit: 600 V UL certified Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Control circuit: 690 V conforming to IEC 60947-1 Power circuit: 690 V conforming to IEC 60947-1 |
| [U _{imp}] rated impulse withstand voltage | 6 kV conforming to IEC 60947 |
| Overvoltage category | III |
| Mounting support | Plate Rail |
| Flame retardance | V1 conforming to UL 94 |
| Tightening torque | Control circuit: 1.7 N.m - cable 1...2.5 mm ² - with screwdriver flat Ø 6 mm Control circuit: 1.7 N.m - cable 1...2.5 mm ² - with screwdriver Philips No 2 Control circuit: 1.7 N.m - cable 1...4 mm ² - with screwdriver flat Ø 6 mm Control circuit: 1.7 N.m - cable 1...4 mm ² - with screwdriver Philips No 2 Power circuit: 5 N.m - cable 1...25 mm ² hexagonal screw head Power circuit: 8 N.m - cable 1...35 mm ² hexagonal screw head |
| [U _e] rated operational voltage | Power circuit: ≤ 1000 V AC 25...400 Hz |
| [I _{th}] conventional free air thermal current | 10 A (at 60 °C) for control circuit 80 A (at 60 °C) for power circuit |
| I _{rms} rated making capacity | 140 A AC for control circuit conforming to IEC 60947-5-1 900 A at 440 V for power circuit conforming to IEC 60947 |
| Rated breaking capacity | 900 A at 440 V for power circuit conforming to IEC 60947 |
| Associated fuse rating | 10 A gG for control circuit conforming to IEC 60947-5-1 100 A gG at ≤ 690 V coordination type 1 for power circuit 100 A gG at ≤ 690 V coordination type 2 for power circuit |
| Average impedance | - I _{th} 80 A 50 Hz for power circuit |
| Power dissipation per pole | 3.7 W AC-3 - I _{th} 80 A |
| Inrush power in VA | 200 VA cos phi 0.75 (at 20 °C) 220 VA cos phi 0.75 (at 20 °C) |
| Hold-in power consumption in VA | 20 VA 50 Hz cos phi 0.3 (at 20 °C) 22 VA 60 Hz cos phi 0.3 (at 20 °C) 26 VA 50 Hz cos phi 0.3 (at 20 °C) 26 VA 60 Hz cos phi 0.3 (at 20 °C) |
| Operating time | 12...26 ms closing 4...19 ms opening |
| 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 | 6000000 cycles |
| Maximum operating rate | 3600 cyc/h 60 °C |
| Minimum switching current | 5 mA for control circuit |
| Minimum switching voltage | 17 V for control circuit |
| Non-overlap time | 1.5 Ms on de-energisation between NC and NO contacts 1.5 ms on energisation between NC and NO contacts |
| Insulation resistance | > 10 MOhm for control circuit |
| Height | 132 mm |
| Width | 165 mm |
| Depth | 142 mm |
| Net weight | 2.4 kg |

Environment

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| Standards | CSA C22.2 No 14 EN 60947-4-1 UL 508 IEC 60947-4-1 IEC 60947-5-1 EN 60947-5-1 |
| Product certifications | CCC GL CSA GOST BV LROS (Lloyds register of shipping) UL RINA DNV |
| IP degree of protection | IP2x conforming to IEC 60529 IP2x conforming to VDE 0106 |
| Protective treatment | TH (pollution degree 3) conforming to IEC 60068 |
| Ambient air temperature for operation | -5...60 °C |
| Ambient air temperature for storage | -60...80 °C |
| Permissible ambient air temperature around the device | -40...70 °C at U _c |
| Operating altitude | 3000 m without |
| Fire resistance | 850 °C conforming to IEC 60695-2-1 |
| Shock resistance | 10 gn contactor closed 8 gn contactor opened |
| Vibration resistance | 2 gn 5...300 Hz contactor opened 3 gn 5...300 Hz contactor closed |
| Heat dissipation | 6...10 W at 60 Hz for control circuit |

Offer Sustainability

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| Sustainable offer status | Green Premium product |
| REACH Regulation | REACH Declaration |
| 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 |
| 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 |

Contractual warranty

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| Warranty | 18 months |
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