

LC2D18ED

TeSys D reversing contactor - 3P(3 NO) - AC-3 - <= 440 V 18 A - 48 V DC coil



Main

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| Range | TeSys |
| Product name | TeSys D |
| Product or component type | Reversing contactor |
| Device short name | LC2D |
| Contactor application | Motor control Resistive load |
| Utilisation category | AC-1 AC-3 |
| Device presentation | Preassembled with reversing power busbar |
| Poles description | 3P |
| Pole contact composition | 3 NO |
| [Ue] rated operational voltage | <= 690 V AC 25...400 Hz for power circuit <= 300 V DC for power circuit |
| [Ie] rated operational current | 18 A (<= 60 °C) at <= 440 V AC AC-3 for power circuit 32 A (<= 60 °C) at <= 440 V AC AC-1 for power circuit |
| Motor power kW | 10 kW at 500 V AC 50/60 Hz 10 kW at 660...690 V AC 50/60 Hz 4 kW at 220...230 V AC 50/60 Hz 7.5 kW at 380...400 V AC 50/60 Hz 9 kW at 415...440 V AC 50/60 Hz |
| Motor power hp | 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 phases motors 5 hp at 230/240 V AC 50/60 Hz for 3 phases motors 10 hp at 460/480 V AC 50/60 Hz for 3 phases motors 15 hp at 575/600 V AC 50/60 Hz for 3 phases motors |
| Control circuit type | DC standard |
| Control circuit voltage | 48 V DC |
| Auxiliary contact composition | 1 NO + 1 NC |
| [Uimp] rated impulse withstand voltage | 6 kV conforming to IEC 60947 |
| Overvoltage category | III |
| [Ith] conventional free air thermal current | 32 A at <= 60 °C for power circuit 10 A at <= 60 °C for signalling circuit |
| Irms rated making capacity | 300 A at 440 V for power circuit conforming to IEC 60947 140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1 |
| Rated breaking capacity | 300 A at 440 V for power circuit conforming to IEC 60947 |
| [Icw] rated short-time withstand current | 145 A <= 40 °C 10 s power circuit 240 A <= 40 °C 1 s power circuit 40 A <= 40 °C 10 min power circuit 84 A <= 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 | 35 A gG at <= 690 V coordination type 2 for power |

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| | circuit 50 A gG at ≤ 690 V coordination type 1 for power circuit 10 A gG for signalling circuit conforming to IEC 60947-5-1 |
| Average impedance | 2.5 mOhm at 50 Hz - Ith 32 A for power circuit |
| [Ui] rated insulation voltage | 600 V for power circuit certifications CSA 600 V for power circuit certifications UL 690 V for power circuit conforming to IEC 60947-4-1 690 V for signalling circuit conforming to IEC 60947-1 600 V for signalling circuit certifications CSA 600 V for signalling circuit certifications UL |
| Electrical durability | 1.65 Mcycles 18 A AC-3 at Ue ≤ 440 V 1 Mcycles 32 A AC-1 at Ue ≤ 440 V |
| Power dissipation per pole | 0.8 W AC-3 2.5 W AC-1 |
| Protective cover | With |
| Interlocking type | Mechanical |
| Mounting support | Plate Rail |
| Standards | EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508 CSA C22.2 No 14 |
| Product certifications | BV CCC CSA DNV GL GOST RINA UL LROS |
| Connections - terminals | Control circuit : screw clamp terminals 2 cable(s) 1...2.5 mm ² - cable stiffness: flexible - with cable end Power circuit : screw clamp terminals 1 cable(s) 1...6 mm ² - cable stiffness: flexible - with cable end Control circuit : screw clamp terminals 1 cable(s) 1...4 mm ² - cable stiffness: flexible - without cable end Control circuit : screw clamp terminals 2 cable(s) 1...4 mm ² - cable stiffness: flexible - without cable end Control circuit : screw clamp terminals 1 cable(s) 1...4 mm ² - cable stiffness: flexible - with cable end Control circuit : screw clamp terminals 1 cable(s) 1...4 mm ² - cable stiffness: solid - without cable end Control circuit : screw clamp terminals 2 cable(s) 1...4 mm ² - cable stiffness: solid - without cable end Power circuit : screw clamp terminals 1 cable(s) 1.5...6 mm ² - cable stiffness: flexible - without cable end Power circuit : screw clamp terminals 2 cable(s) 1.5...6 mm ² - cable stiffness: flexible - without cable end Power circuit : screw clamp terminals 2 cable(s) 1...4 mm ² - cable stiffness: flexible - with cable end Power circuit : screw clamp terminals 1 cable(s) 1.5...6 mm ² - cable stiffness: solid - without cable end Power circuit : screw clamp terminals 2 cable(s) 1.5...6 mm ² - cable stiffness: solid - without cable end |
| Tightening torque | Power circuit : 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Power circuit : 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2 Control circuit : 1.7 N.m - on screw clamp |

terminals - with screwdriver flat Ø 6 mm
Control circuit : 1.7 N.m - on screw clamp
terminals - with screwdriver Philips No 2

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| Operating time | 53.55...72.45 ms closing 16...24 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 | 30 Mcycles |
| Operating rate | 3600 cyc/h at <= 60 °C |

Complementary

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| Coil technology | Built-in bidirectional peak limiting diode suppressor |
| Control circuit voltage limits | 0.1...0.25 Uc at 60 °C drop-out 0.7...1.25 Uc at 60 °C operational |
| Time constant | 28 ms |
| Inrush power in W | 5.4 W at 20 °C |
| Hold-in power consumption in W | 5.4 W at 20 °C |
| 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 current | 5 mA for signalling circuit |
| Minimum switching voltage | |
| 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 for signalling circuit |

Environment

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| IP degree of protection | IP2x front face conforming to IEC 60529 |
| Protective treatment | TH conforming to IEC 60068-2-30 |
| Pollution degree | 3 |
| 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 Uc |
| Operating altitude | 3000 m without derating in temperature |
| 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 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 | 77 mm |
| Width | 90 mm |
| Depth | 95 mm |
| Product weight | 1.037 kg |

Offer Sustainability

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| Sustainable offer status | Green Premium product |
| RoHS | Compliant - since 0627 - Schneider Electric declaration of conformity |
| REACH | Reference not containing SVHC above the threshold |
| Product environmental profile | Available |
| Product end of life instructions | Need no specific recycling operations |