

Product data sheet

Specifications



Reversing Contactor, TeSys Deca, 3P(3NO), AC-3, <=440V, 12A, 24V DC coil, with mechanical and electrical interlocking, screw clamp terminals

LC2D12BDV

Main

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|---|---|
| Range | TeSys TeSys Deca |
| Product name | TeSys D TeSys Deca |
| Product or component type | Reversing contactor |
| Device short name | LC2D |
| Contactor application | Motor control Resistive load |
| Utilisation category | AC-3 AC-1 |
| Device presentation | Preassembled with reversing power busbar |
| Poles description | 3P |
| power pole contact composition | 3 NO |
| [Ue] rated operational voltage | Power circuit: <= 690 V AC 25...400 Hz Power circuit: <= 300 V DC |
| [Ie] rated operational current | 25 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 12 A (at <60 °C) at <= 440 V AC AC-3 for power circuit |
| Motor power kW | 3 kW at 220...230 V AC 50 Hz 5.5 kW at 380...400 V AC 50 Hz 5.5 kW at 415...440 V AC 50 Hz 7.5 kW at 500 V AC 50 Hz 7.5 kW at 660...690 V AC 50 Hz |
| motor power HP (UL / CSA) | 1 hp at 115 V AC 60 Hz for 1 phase motors 2 hp at 230/240 V AC 60 Hz for 1 phase motors 3 hp at 200/208 V AC 60 Hz for 3 phases motors 3 hp at 230/240 V AC 60 Hz for 3 phases motors 7.5 hp at 460/480 V AC 60 Hz for 3 phases motors 10 hp at 575/600 V AC 60 Hz for 3 phases motors |
| Control circuit type | DC standard |
| [Uc] control circuit voltage | 24 V DC |
| Auxiliary contact composition | 1 NO + 1 NC |
| [Uiimp] rated impulse withstand voltage | 6 kV conforming to IEC 60947 |
| Overvoltage category | III |
| [ith] conventional free air thermal current | 10 A (at 60 °C) for signalling circuit 25 A (at 60 °C) for power circuit |
| Irms rated making capacity | 250 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 | 250 A at 440 V for power circuit conforming to IEC 60947 |

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| [lcw] rated short-time withstand current | 30 A 40 °C - 10 min for power circuit 61 A 40 °C - 1 min for power circuit 105 A 40 °C - 10 s for power circuit 210 A 40 °C - 1 s 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 40 A gG at <= 690 V coordination type 1 for power circuit 25 A gG at <= 690 V coordination type 2 for power circuit |
| Average impedance | 2.5 mOhm - Ith 25 A 50 Hz for power circuit |
| [Ui] rated insulation voltage | Power circuit: 690 V conforming to IEC 60947-4-1 Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Signalling circuit: 690 V conforming to IEC 60947-1 Signalling circuit: 600 V CSA certified Signalling circuit: 600 V UL certified |
| Electrical durability | 2 Mcycles 12 A AC-3 at Ue <= 440 V 0.8 Mcycles 25 A AC-1 at Ue <= 440 V |
| Power dissipation per pole | 1.56 W AC-1 0.36 W AC-3 |
| Front cover | With |
| Interlocking type | Electrical and mechanical |
| Mounting support | Plate Rail |
| Standards | CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 60335-2-40:Annex JJ IEC 60335-1 |
| Product certifications | DNV CSA CCC UL GL LROS (Lloyds register of shipping) BV RINA GOST UKCA |
| Connections - terminals | Power circuit: screw clamp terminals 1 cable(s) 1...4 mm ² flexible without cable end Power circuit: screw clamp terminals 2 cable(s) 1...4 mm ² flexible without cable end Power circuit: screw clamp terminals 1 cable(s) 1...4 mm ² flexible with cable end Power circuit: screw clamp terminals 2 cable(s) 1...2.5 mm ² flexible with cable end Power circuit: screw clamp terminals 1 cable(s) 1...4 mm ² solid Power circuit: screw clamp terminals 2 cable(s) 1...4 mm ² solid Control circuit: screw clamp terminals 1 cable(s) 1...4 mm ² flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm ² flexible without cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm ² flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm ² flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm ² solid Control circuit: screw clamp terminals 2 cable(s) 1...4 mm ² solid |
| 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 Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2 Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver pozidriv No 2 |
| 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 |

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|-------------------------------|------------------|
| Mechanical durability | 30 Mcycles |
| Maximum operating rate | 3600 cyc/h 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 (-40...70 °C):drop-out DC 0.7...1.25 Uc (-40...60 °C):operational DC 1...1.25 Uc (60...70 °C):operational DC |
| 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 | 17 V 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 |
| Insulation resistance | > 10 MΩ for signalling circuit |

Environment

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| IP degree of protection | IP20 front face conforming to IEC 60529 |
| Climatic withstand | conforming to IACS E10 conforming to IEC 60947-1 Annex Q category D |
| Protective treatment | TH conforming to IEC 60068-2-30 |
| Pollution degree | 3 |
| Ambient air temperature for operation | -40...60 °C 60...70 °C with derating |
| Ambient air temperature for storage | -60...80 °C |
| 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 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 |
| Net weight | 1.027 kg |

Packing Units

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|-------------------------------------|-----------|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Height | 13.800 cm |
| Package 1 Width | 9.300 cm |

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|------------------------------|-----------|
| Package 1 Length | 11.300 cm |
| Package 1 Weight | 1.146 kg |
| Unit Type of Package 2 | S02 |
| Number of Units in Package 2 | 6 |
| Package 2 Height | 15.000 cm |
| Package 2 Width | 30.000 cm |
| Package 2 Length | 40.000 cm |
| Package 2 Weight | 7.200 kg |

Contractual warranty

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| Warranty | 18 months |
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Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

Environmental footprint

Total lifecycle Carbon footprint **75**

Environmental Disclosure [Product Environmental Profile](#)

Use Better

Materials and Substances

Packaging made with recycled cardboard **Yes**

Packaging without single use plastic **Yes**

[EU RoHS Directive](#) **Compliant with Exemptions**

SCIP Number **50ae7612-fd2e-41e4-a369-50d0dea6e592**

REACH Regulation [REACH Declaration](#)

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](#)

PVC free **Yes**

Use Again

Repack and remanufacture

End of life manual availability [End of Life Information](#)

Take-back **No**

WEEE Label
 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Technical Illustration

Assembly's dimensions

