

# LC2DT40BD

TeSys Deca changeover contactor - 4P(4 NO) -  
AC-1 -  $\leq 440$  V 40 A - 24 V DC coil



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## Main

|   |   |
|---|---|
| Range                                       | TeSys<br>TeSys Deca   |
| Product name                                | TeSys Deca<br>TeSys Deca  |
| Product or Component Type                   | Changeover contactor  |
| Device short name                           | LC2D  |
| Contactor application                       | Resistive load  |
| Utilisation category                        | AC-1<br>AC-3<br>AC-3e<br>AC-4   |
| Device presentation                         | Preassembled with reversing power busbar  |
| Poles description                           | 4P  |
| Power pole contact composition              | 4 NO  |
| [Ue] rated operational voltage              | Power circuit <= 690 V AC 25...400 Hz<br>Power circuit <= 300 V DC  |
| [Ie] rated operational current              | 40 A (at <140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit   |
| Control circuit type                        | DC standard   |
| [Uc] control circuit voltage                | 24 V DC   |
| Auxiliary contact composition               | 1 NO + 1 NC   |
| [Uimp] rated impulse withstand voltage      | 6 kV IEC 60947  |
| Overtoltage category                        | III   |
| [Ith] conventional free air thermal current | 10 A (at 140 °F (60 °C)) for signalling circuit<br>40 A (at 140 °F (60 °C)) for power circuit   |
| Irms rated making capacity                  | 140 A AC for signalling circuit conforming to IEC 60947-5-1<br>250 A DC for signalling circuit conforming to IEC 60947-5-1<br>450 A at 440 V for power circuit conforming to IEC 60947  |
| Rated breaking capacity                     | 450 A at 440 V for power circuit conforming to IEC 60947  |
| [Icw] rated short-time withstand current    | 50 A 104 °F (40 °C) - 10 min for power circuit<br>120 A 104 °F (40 °C) - 1 min for power circuit<br>240 A 104 °F (40 °C) - 10 s for power circuit<br>380 A 104 °F (40 °C) - 1 s for power circuit<br>100 A - 1 s for signalling circuit<br>120 A - 500 ms for signalling circuit<br>140 A - 100 ms for signalling circuit |
| Associated fuse rating                      | 10 A gG for signalling circuit conforming to IEC 60947-5-1<br>63 A gG at <= 690 V coordination type 1 for power circuit<br>40 A gG at <= 690 V coordination type 2 for power circuit  |
| Average impedance                           | 2 mOhm - Ith 40 A 50 Hz for power circuit   |
| [Ui] rated insulation voltage               | Power circuit 690 V IEC 60947-4-1<br>Power circuit 600 V CSA<br>Power circuit 600 V UL<br>Signalling circuit 690 V IEC 60947-1<br>Signalling circuit 600 V CSA<br>Signalling circuit 600 V UL   |
| Electrical durability                       | 1.4 Mcycles 40 A AC-1 <= 440 V  |
| Power dissipation per pole                  | 3.2 W AC-1  |
| Front cover                                 | With  |
| Interlocking type                           | Mechanical  |

|                          |  |
|--------------------------|--|
| Mounting Support         | Plate<br>Rail  |
| Standards                | CSA C22.2 No 14<br>EN 60947-4-1<br>EN 60947-5-1<br>IEC 60947-4-1<br>IEC 60947-5-1<br>UL 508<br>IEC 60335-1   |
| Product certifications   | UL[RETURN]CSA[RETURN]CCC[RETURN]EAC[RETURN]UKCA<br>RO-MR by DNV-GL   |
| Connections - terminals  | Control circuit screw clamp terminals 1 0.00...<br>0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible without cable end<br>Control circuit screw clamp terminals 2 0.00...<br>0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible without cable end<br>Control circuit screw clamp terminals 1 0.00...<br>0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible with cable end<br>Control circuit screw clamp terminals 2 0.00...<br>0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> )flexible with cable end<br>Control circuit screw clamp terminals 1 0.00...<br>0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid without cable end<br>Control circuit screw clamp terminals 2 0.00...<br>0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid without cable end<br>Power circuit connector 1 0.00...0.02 in <sup>2</sup> (2.5...<br>10 mm <sup>2</sup> )flexible without cable end<br>Power circuit connector 2 0.00...0.02 in <sup>2</sup> (2.5...<br>10 mm <sup>2</sup> )flexible without cable end<br>Power circuit connector 1 0.00...0.02 in <sup>2</sup> (2.5...<br>10 mm <sup>2</sup> )flexible with cable end<br>Power circuit connector 2 0.00...0.02 in <sup>2</sup> (2.5...<br>10 mm <sup>2</sup> )flexible with cable end<br>Power circuit connector 1 0.00...0.02 in <sup>2</sup> (2.5...<br>16 mm <sup>2</sup> )solid without cable end<br>Power circuit connector 2 0.00...0.02 in <sup>2</sup> (2.5...<br>16 mm <sup>2</sup> )solid without cable end |
| Tightening torque        | Control circuit 15.05 lbf.in (1.7 N.m) screw clamp<br>terminals flat Ø 6 mm<br>Control circuit 15.05 lbf.in (1.7 N.m) screw clamp<br>terminals Philips No 2<br>Power circuit 15.05 lbf.in (1.7 N.m) connector flat Ø<br>6 mm<br>Power circuit 15.05 lbf.in (1.7 N.m) connector Philips<br>No 2<br>Power circuit 15.05 lbf.in (1.7 N.m) screw clamp<br>terminals pozidriv No 2<br>Control circuit 15.05 lbf.in (1.7 N.m) screw clamp<br>terminals pozidriv No 2   |
| Operating time           | 53.55...72.45 ms closing<br>16...24 ms opening   |
| Safety reliability level | B10d = 1369863 cycles contactor with nominal load<br>EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical<br>load EN/ISO 13849-1   |
| Mechanical durability    | 30 Mcycles   |
| Maximum operating rate   | 3600 cyc/h 140 °F (60 °C)  |

## Complementary

|                                |   |
|--------------------------------|---|
| Coil technology                | Built-in bidirectional peak limiting diode suppressor   |
| Control circuit voltage limits | 0.1...0.25 Uc -40...140 °F (-40...60 °C) drop-out DC<br>0.7...1.25 Uc -40...140 °F (-40...60 °C) operational DC |
| Time constant                  | 28 ms   |
| Inrush power in W              | 5.4 W 68 °F (20 °C)   |
| Hold-in power consumption in W | 5.4 W 68 °F (20 °C)   |
| Auxiliary contacts type        | Mechanically linked 1 NO + 1 NC IEC 60947-5-1<br>Mirror contact 1 NC 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<br>1.5 ms on energisation between NC and NO contact         |
| Insulation resistance          | > 10 MOhm for signalling circuit  |

## Environment

|                                       |   |
|---------------------------------------|---|
| IP degree of protection               | IP20 front face IEC 60529   |
| Climatic withstand                    | IACS E10<br>IEC 60947-1 Annex Q category D  |
| Protective treatment                  | TH IEC 60068-2-30   |
| Pollution degree                      | 3   |
| Ambient air temperature for operation | -40...140 °F (-40...60 °C)<br>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 open2 Gn, 5...300 Hz<br>Vibrations contactor closed4 Gn, 5...300 Hz<br>Shocks contactor closed15 Gn for 11 ms<br>Shocks contactor open8 Gn for 11 ms |
| Height                                | 3.58 in (91 mm)   |
| Width                                 | 3.54 in (90 mm)   |
| Depth                                 | 3.86 in (98 mm)   |
| Net Weight                            | 1.87 lb(US) (0.85 kg)   |

## Ordering and shipping details

|                   |                                    |
|-------------------|------------------------------------|
| Category          | 22355-CTR, TESYS D, OPEN, 9-38A DC |
| Discount Schedule | I12                                |
| GTIN              | 3389110248098                      |
| Returnability     | No                                 |
| Country of origin | FR                                 |

## Packing Units

|                              |                    |
|------------------------------|--------------------|
| Unit Type of Package 1       | PCE                |
| Number of Units in Package 1 | 1                  |
| Package 1 Height             | 3.57 in (9.08 cm)  |
| Package 1 Width              | 3.54 in (9.0 cm)   |
| Package 1 Length             | 3.92 in (9.95 cm)  |
| Package 1 Weight             | 30.69 oz (870.0 g) |

## Offer Sustainability

|                            |   |
|----------------------------|---|
| 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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |
| REACH Regulation           | <a href="#">REACH Declaration</a>   |
| REACH free of SVHC         | Yes   |
| EU RoHS Directive          | Compliant <a href="#">EU RoHS Declaration</a>   |
| Toxic heavy metal free     | Yes   |
| Mercury free               | Yes   |
| China RoHS Regulation      | <a href="#">China RoHS Declaration</a>  |
| RoHS exemption information | <a href="#">Yes</a>   |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>   |
| Circularity Profile        | <a href="#">End Of Life Information</a>   |
| 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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