



## Main

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|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                       | TeSys                                                                                                                                                                                                                                                                                       |
| Product name                                | TeSys D                                                                                                                                                                                                                                                                                     |
| Product or component type                   | Changeover contactor                                                                                                                                                                                                                                                                        |
| Device short name                           | LC2D                                                                                                                                                                                                                                                                                        |
| Contactor application                       | Resistive load                                                                                                                                                                                                                                                                              |
| Utilisation category                        | AC-1                                                                                                                                                                                                                                                                                        |
| Device presentation                         | Preamsembled with reversing power busbar                                                                                                                                                                                                                                                    |
| Poles description                           | 4P                                                                                                                                                                                                                                                                                          |
| Pole contact composition                    | 4 NO                                                                                                                                                                                                                                                                                        |
| System Voltage                              | <= 690 V AC 25...400 Hz power circuit<br><= 300 V DC power circuit                                                                                                                                                                                                                          |
| [Ie] rated operational current              | 40 A (<= 140 °F (60 °C)) at <= 440 V AC AC-1 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 conforming to IEC 60947                                                                                                                                                                                                                                                                |
| Overvoltage category                        | III                                                                                                                                                                                                                                                                                         |
| [Ith] conventional free air thermal current | 40 A at <= 140 °F (60 °C) power circuit<br>10 A at <= 140 °F (60 °C) signalling circuit                                                                                                                                                                                                     |
| Irms rated making capacity                  | 450 A at 440 V power circuit conforming to IEC 60947<br>140 A AC signalling circuit conforming to IEC 60947-5-1<br>250 A DC signalling circuit conforming to IEC 60947-5-1                                                                                                                  |
| Rated breaking capacity                     | 450 A at 440 V power circuit conforming to IEC 60947                                                                                                                                                                                                                                        |
| [Icw] rated short-time withstand current    | 120 A <= 104 °F (40 °C) 1 min power circuit<br>240 A <= 104 °F (40 °C) 10 s power circuit<br>380 A <= 104 °F (40 °C) 1 s power circuit<br>50 A <= 104 °F (40 °C) 10 min power circuit<br>100 A 1 s signalling circuit<br>120 A 500 ms signalling circuit<br>140 A 100 ms signalling circuit |
| Associated fuse rating                      | 40 A gG at <= 690 V coordination type 2 power circuit<br>63 A gG at <= 690 V coordination type 1 power circuit<br>10 A gG signalling circuit conforming to IEC 60947-5-1                                                                                                                    |
| Average impedance                           | 2 mOhm at 50 Hz - Ith 40 A power circuit                                                                                                                                                                                                                                                    |
| [Ui] rated insulation voltage               | 600 V power circuit certifications CSA<br>600 V power circuit certifications UL<br>690 V power circuit conforming to IEC 60947-4-1<br>690 V signalling circuit conforming to IEC 60947-1<br>600 V signalling circuit certifications CSA<br>600 V signalling circuit certifications UL       |
| Electrical durability                       | 1.4 Mcycles 40 A AC-1 <= 440 V                                                                                                                                                                                                                                                              |
| Power dissipation per pole                  | 3.2 W AC-1                                                                                                                                                                                                                                                                                  |
| Protective cover                            | With                                                                                                                                                                                                                                                                                        |
| Interlocking type                           | Mechanical                                                                                                                                                                                                                                                                                  |
| Mounting support                            | Plate<br>Rail                                                                                                                                                                                                                                                                               |

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| Standards                | UL 508<br>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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Product certifications   | UL<br>CSA<br>CCC<br>EAC<br>GL<br>BV<br>DNV<br>RINA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Connections - terminals  | Control circuit: screw clamp terminals 2 cable(s) 0...0 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) - cable stiffness: flexible - with cable end<br>Control circuit: screw clamp terminals 1 cable(s) 0...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: flexible - without cable end<br>Control circuit: screw clamp terminals 2 cable(s) 0...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: flexible - without cable end<br>Control circuit: screw clamp terminals 1 cable(s) 0...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: flexible - with cable end<br>Control circuit: screw clamp terminals 1 cable(s) 0...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: solid - without cable end<br>Control circuit: screw clamp terminals 2 cable(s) 0...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: solid - without cable end<br>Power circuit: connector 1 cable(s) 0...0.02 in <sup>2</sup> (2.5...10 mm <sup>2</sup> ) - cable stiffness: flexible - without cable end<br>Power circuit: connector 2 cable(s) 0...0.02 in <sup>2</sup> (2.5...10 mm <sup>2</sup> ) - cable stiffness: flexible - without cable end<br>Power circuit: connector 1 cable(s) 0...0.02 in <sup>2</sup> (2.5...10 mm <sup>2</sup> ) - cable stiffness: flexible - with cable end<br>Power circuit: connector 2 cable(s) 0...0.02 in <sup>2</sup> (2.5...10 mm <sup>2</sup> ) - cable stiffness: flexible - with cable end<br>Power circuit: connector 1 cable(s) 0...0.02 in <sup>2</sup> (2.5...16 mm <sup>2</sup> ) - cable stiffness: solid - without cable end<br>Power circuit: connector 2 cable(s) 0...0.02 in <sup>2</sup> (2.5...16 mm <sup>2</sup> ) - cable stiffness: solid - without cable end |
| Tightening torque        | Control circuit: 15.04 lbf.in (1.7 N.m) - on screw clamp terminals - with screwdriver flat Ø 6 mm<br>Control circuit: 15.04 lbf.in (1.7 N.m) - on screw clamp terminals - with screwdriver Philips No 2<br>Power circuit: 15.04 lbf.in (1.7 N.m) - on connector - with screwdriver flat Ø 6 mm<br>Power circuit: 15.04 lbf.in (1.7 N.m) - on connector - with screwdriver Philips 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 conforming to EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Mechanical durability    | 30 Mcycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Operating rate           | 3600 cyc/h at ≤ 140 °F (60 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

## Complementary

|                                |                                                                                                                         |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Coil technology                | Built-in bidirectional peak limiting diode suppressor                                                                   |
| Control circuit voltage limits | 0.1...0.25 U <sub>c</sub> drop-out at 140 °F (60 °C), DC<br>0.7...1.25 U <sub>c</sub> operational at 140 °F (60 °C), DC |
| Time constant                  | 28 ms                                                                                                                   |
| Inrush power in W              | 5.4 W at 68 °F (20 °C)                                                                                                  |

|                                |                                                                                                                              |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Hold-in power consumption in W | 5.4 W at 68 °F (20 °C)                                                                                                       |
| Auxiliary contacts type        | Type mechanically linked (1 NO + 1 NC) conforming to IEC 60947-5-1<br>Type mirror contact (1 NC) conforming to IEC 60947-4-1 |
| Signalling circuit frequency   | 25...400 Hz                                                                                                                  |
| Minimum switching current      | 5 mA signalling circuit                                                                                                      |
| Minimum switching voltage      | 17 V 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 signalling circuit                                                                                                 |

## Environment

|                                                       |                                                                                                                                                                               |
|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IP degree of protection                               | IP20 front face conforming to IEC 60529                                                                                                                                       |
| protective treatment                                  | TH conforming to IEC 60068-2-30                                                                                                                                               |
| pollution degree                                      | 3                                                                                                                                                                             |
| ambient air temperature for operation                 | 23...140 °F (-5...60 °C)                                                                                                                                                      |
| ambient air temperature for storage                   | -76...176 °F (-60...80 °C)                                                                                                                                                    |
| permissible ambient air temperature around the device | -40...158 °F (-40...70 °C) at Uc                                                                                                                                              |
| operating altitude                                    | 9842.52 ft (3000 m) without derating in temperature                                                                                                                           |
| fire resistance                                       | 1562 °F (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<br>Vibrations contactor closed 4 Gn, 5...300 Hz<br>Shocks contactor closed 15 Gn for 11 ms<br>Shocks contactor open 8 Gn for 11 ms |
| height                                                | 3.58 in (91 mm)                                                                                                                                                               |
| width                                                 | 3.54 in (90 mm)                                                                                                                                                               |
| depth                                                 | 3.86 in (98 mm)                                                                                                                                                               |
| product weight                                        | 1.87 lb(US) (0.85 kg)                                                                                                                                                         |

## Offer Sustainability

|                                                                       |                                                                       |
|-----------------------------------------------------------------------|-----------------------------------------------------------------------|
| Green Premium product                                                 | Green Premium product                                                 |
| Compliant - since 0711 - Schneider Electric declaration of conformity | Compliant - since 0711 - Schneider Electric declaration of conformity |
| Reference not containing SVHC above the threshold                     | Reference not containing SVHC above the threshold                     |
| Available                                                             | Available                                                             |
| Available                                                             | Available                                                             |

## Contractual warranty

|                 |           |
|-----------------|-----------|
| Warranty period | 18 months |
|-----------------|-----------|