





## Main

|   |  |
|---|--|
| 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                         | Preassembled, with prewired power connections  |
| Poles description                           | 4P   |
| Power pole contact composition              | 4 NO   |
| [Ue] rated operational voltage              | Power circuit $\leq 690$ V AC 25...400 Hz<br>Power circuit $\leq 300$ V DC   |
| [Ie] rated operational current              | 20 A (at $\leq 60$ °C) at $\leq 440$ 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   |
| Overvoltage category                        | III  |
| [Ith] conventional free air thermal current | 10 A 140 °F (60 °C) signalling circuit<br>20 A (at 60 °C) for power circuit  |
| Irms rated making capacity                  | 250 A at 440 V for power circuit conforming to IEC 60947<br>140 A AC signalling circuit IEC 60947-5-1<br>250 A DC signalling circuit IEC 60947-5-1   |
| Rated breaking capacity                     | 250 A at 440 V for power circuit conforming to IEC 60947   |
| [Icw] rated short-time withstand current    | 30 A 40 °C - 10 min for power circuit<br>61 A 40 °C - 1 min for power circuit<br>105 A 40 °C - 10 s for power circuit<br>210 A 40 °C - 1 s for 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                      | 25 A gG at $\leq 690$ V coordination type 1 for power circuit<br>20 A gG at $\leq 690$ V coordination type 2 for power circuit<br>10 A gG signalling circuit IEC 60947-5-1   |
| Average impedance                           | 2.5 mOhm - Ith 20 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  |
| Power dissipation per pole                  | 1.56 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  |

|                          |  |
|--------------------------|--|
| Product certifications   | UL<br>GL<br>GOST<br>CCC<br>BV<br>DNV<br>CSA<br>RINA<br>LROS (Lloyds register of shipping)  |
| Connections - terminals  | Power circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> flexible without cable end<br>Power circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> flexible without cable end<br>Power circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> flexible with cable end<br>Power circuit: screw clamp terminals 2 cable(s) 1...2.5 mm <sup>2</sup> flexible with cable end<br>Power circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid<br>Power circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid<br>Control circuit screw clamp terminals 1 0.00...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...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...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...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...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid<br>Control circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid |
| Tightening torque        | Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm<br>Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2<br>Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm<br>Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals 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 EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical 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...70 °C):drop-out DC<br>0.7...1.25 Uc (-40...60 °C):operational DC<br>1...1.25 Uc 140...158 °F (60...70 °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 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  |
| Contact compatibility          | M7  |
| Compatibility code             | LC2D  |

## Environment

|                                       |  |
|---------------------------------------|--|
| IP degree of protection               | IP20 front face IEC 60529  |
| 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 UL 94   |
| Mechanical robustness                 | Vibrations contactor open2 Gn, 5...300 Hz<br>Vibrations contactor closed4 Gn, 5...300 Hz<br>Shocks contactor open10 Gn for 11 ms<br>Shocks contactor closed15 Gn for 11 ms |
| Height                                | 3.35 in (85 mm)  |
| Maximum Width                         | 3.54 in (90 mm)  |
| Depth                                 | 3.54 in (90 mm)  |
| Net Weight                            | 1.61 lb(US) (0.73 kg)  |

## Ordering and shipping details

|                       |                                      |
|-----------------------|--------------------------------------|
| Category              | 22355 - CTR, TESYS D, OPEN, 9-38A DC |
| Discount Schedule     | I12                                  |
| GTIN                  | 00785901407942                       |
| Nbr. of units in pkg. | 1                                    |
| Package weight(Lbs)   | 1.61 lb(US) (0.73 kg)                |
| Returnability         | No                                   |
| Country of origin     | FR                                   |

## Packing Units

|                        |                   |
|------------------------|-------------------|
| Unit Type of Package 1 | PCE               |
| Package 1 Height       | 3.34 in (8.48 cm) |
| Package 1 width        | 3.54 in (9 cm)    |
| Package 1 Length       | 3.62 in (9.2 cm)  |

## 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   |
| RoHS exemption information | <a href="#">Yes</a>   |
| China RoHS Regulation      | <a href="#">China RoHS Declaration</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

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