



## Main

|   |   |
|---|---|
| Range                                       | TeSys   |
| Product name                                | TeSys D   |
| Product or component type                   | Contactor   |
| Device short name                           | LC1D  |
| Contactor application                       | Resistive load  |
| Utilisation category                        | AC-1  |
| Poles description                           | 4P  |
| Pole contact composition                    | 2 NO + 2 NC   |
| [Ue] rated operational voltage              | ≤ 300 V DC for power circuit<br>≤ 690 V AC 25...400 Hz for power circuit  |
| [Ie] rated operational current              | 40 A (≤ 60 °C) at ≤ 440 V AC AC-1 for power circuit   |
| Control circuit type                        | DC standard   |
| [Uc] control circuit voltage                | 72 V DC   |
| Auxiliary contact composition               | 1 NO + 1 NC   |
| [Uimp] rated impulse withstand voltage      | 6 kV conforming to IEC 60947  |
| Overtoltage category                        | III   |
| [Ith] conventional free air thermal current | 40 A at ≤ 60 °C for power circuit<br>10 A at ≤ 60 °C for signalling circuit   |
| Irms rated making capacity                  | 450 A at 440 V for power circuit conforming to IEC 60947<br>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  |
| Rated breaking capacity                     | 450 A at 440 V for power circuit conforming to IEC 60947  |
| [Icw] rated short-time withstand current    | 120 A ≤ 40 °C 1 min power circuit<br>240 A ≤ 40 °C 10 s power circuit<br>380 A ≤ 40 °C 1 s power circuit<br>50 A ≤ 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 for power circuit<br>63 A gG at ≤ 690 V coordination type 1 for power circuit<br>10 A gG for signalling circuit conforming to IEC 60947-5-1  |
| Average impedance                           | 2 mOhm at 50 Hz - Ith 40 A for power circuit  |
| [Ui] rated insulation voltage               | 600 V for power circuit certifications CSA<br>600 V for power circuit certifications UL<br>690 V for power circuit conforming to IEC 60947-4-1<br>690 V for signalling circuit conforming to IEC 60947-1<br>600 V for signalling circuit certifications CSA<br>600 V for signalling circuit certifications UL |
| Electrical durability                       | 1.4 Mcycles 40 A AC-1 at Ue ≤ 440 V   |
| Power dissipation per pole                  | 3.2 W AC-1  |

|                          |  |
|--------------------------|--|
| Protective cover         | With   |
| Mounting support         | Rail<br>Plate  |
| 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   | CSA<br>DNV<br>UL<br>CCC<br>GL<br>BV<br>RINA<br>GOST<br>LROS (Lloyds register of shipping)  |
| Connections - terminals  | Control circuit : screw clamp terminals 2 cable(s) 1...2.5 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Control circuit : screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Control circuit : screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Control circuit : screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Control circuit : screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: solid - without cable end<br>Control circuit : screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: solid - without cable end<br>Power circuit : connector 1 cable(s) 2.5...10 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Power circuit : connector 2 cable(s) 2.5...10 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Power circuit : connector 1 cable(s) 2.5...10 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Power circuit : connector 2 cable(s) 2.5...10 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Power circuit : connector 1 cable(s) 2.5...16 mm <sup>2</sup> - cable stiffness: solid - without cable end<br>Power circuit : connector 2 cable(s) 2.5...16 mm <sup>2</sup> - cable stiffness: solid - without cable end |
| Tightening torque        | Control circuit : 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm<br>Control circuit : 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2<br>Power circuit : 1.8 N.m - on connector - with screwdriver flat Ø 6 mm<br>Power circuit : 1.8 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 ≤ 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 60 °C, DC<br>0.7...1.25 U <sub>c</sub> operational at 60 °C, 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<br>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 energisation between NC and NO contact<br>1.5 ms on de-energisation between NC and NO contact                      |
| Insulation resistance          | > 10 MOhm for 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                 | -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   |
| 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<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  | 91 mm   |
| Width   | 45 mm   |
| Depth   | 107 mm  |
| Product weight  | 0.585 kg  |

## Offer Sustainability

|                                  |  |
|----------------------------------|--|
| Sustainable offer status         | Green Premium product  |
| RoHS (date code: YYWW)           | Compliant - since 0702 - Schneider Electric declaration of conformity <a href="#">Schneider Electric declaration of conformity</a> |
| REACH                            | Reference not containing SVHC above the threshold  |
| Product environmental profile    | Available <a href="#">Product Environmental Profile</a>  |
| Product end of life instructions | Available <a href="#">End Of Life Information</a>  |

## Contractual warranty

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

Product Life Status : **Commercialised**