

# LC1D40008F7

TeSys D contactor - 4P(2 NO + 2 NC) - AC-1 -  
≤ 440 V 60 A - 110 V AC coil



## Main

|   |  |
|---|--|
| Commercial Status                           | Commercialised   |
| Range of product                            | TeSys D  |
| Product or component type                   | Contacteur   |
| Device short name                           | LC1D   |
| Contacteur application                      | Resistive load   |
| Utilisation category                        | AC-1   |
| Poles description                           | 4P   |
| Power 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              | 60 A (≤ 60 °C) at ≤ 440 V AC AC-1 for power circuit  |
| Control circuit type                        | AC 50/60 Hz  |
| Control circuit voltage                     | 110 V AC 50/60 Hz  |
| [Uimp] rated impulse withstand voltage      | 6 kV conforming to IEC 60947   |
| Overvoltage category                        | III  |
| [Ith] conventional free air thermal current | 60 A at ≤ 60 °C for power circuit  |
| Irms rated making capacity                  | 800 A at 440 V for power circuit conforming to IEC 60947   |
| Rated breaking capacity                     | 800 A at 440 V for power circuit conforming to IEC 60947   |
| [Icw] rated short-time withstand current    | 165 A ≤ 40 °C 1 min power circuit<br>72 A ≤ 40 °C 10 min power circuit<br>720 A ≤ 40 °C 1 s power circuit<br>320 A ≤ 40 °C 10 s power circuit  |
| Associated fuse rating                      | 80 A gG at ≤ 690 V coordination type 2 for power circuit<br>80 A gG at ≤ 690 V coordination type 1 for power circuit                           |
| Average impedance                           | 1.50 mOhm at 50 Hz - Ith 60 A for power circuit  |
| [Ui] rated insulation voltage               | 600 V for power circuit certifications UL<br>600 V for power circuit certifications CSA<br>690 V for power circuit conforming to IEC 60947-4-1 |
| Electrical durability                       | 1.4 Mcycles 60 A AC-1 at Ue ≤ 440 V  |
| Power dissipation per pole                  | 5.4 W AC-1   |
| Safety cover                                | Without  |
| Mounting support                            | Plate<br>Rail  |
| Standards                                   | EN 60947-4-1<br>EN 60947-5-1<br>IEC 60947-4-1<br>IEC 60947-5-1<br>UL 508<br>CSA C22.2 No 14  |

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|--------------------------|--|
| Product certifications   | BV<br>CCC<br>CSA<br>DNV<br>GL<br>GOST<br>RINA<br>UL<br>LROS  |
| Connections - terminals  | Power circuit: screw clamp terminals 2 cable(s)<br>1...25 mm <sup>2</sup> - cable stiffness: solid - without cable end<br>Power circuit: screw clamp terminals 1 cable(s)<br>1...35 mm <sup>2</sup> - cable stiffness: solid - without cable end<br>Power circuit: screw clamp terminals 2 cable(s)<br>1...25 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Power circuit: screw clamp terminals 1 cable(s)<br>1...35 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Power circuit: screw clamp terminals 2 cable(s)<br>1...25 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Power circuit: screw clamp terminals 1 cable(s)<br>1...35 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Control circuit: screw clamp terminals 2 cable(s)<br>1...4 mm <sup>2</sup> - cable stiffness: solid - without cable end<br>Control circuit: screw clamp terminals 1 cable(s)<br>1...4 mm <sup>2</sup> - cable stiffness: solid - without cable end<br>Control circuit: screw clamp terminals 2 cable(s)<br>1...2.5 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Control circuit: screw clamp terminals 1 cable(s)<br>1...4 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Control circuit: screw clamp terminals 2 cable(s)<br>1...4 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Control circuit: screw clamp terminals 1 cable(s)<br>1...4 mm <sup>2</sup> - cable stiffness: flexible - without cable end |
| Tightening torque        | Power circuit: 8 N.m - on screw clamp terminals - cable 25...35 mm <sup>2</sup> hexagonal 4 mm<br>Power circuit: 5 N.m - on screw clamp terminals - cable ≤ 25 mm <sup>2</sup> hexagonal 4 mm<br>Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2<br>Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm   |
| Operating time           | 12...26 ms closing<br>4...19 ms opening  |
| Safety reliability level | B10d = 2000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1<br>B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1  |
| Mechanical durability    | 6 Mcycles  |
| Operating rate           | 3600 cyc/h at ≤ 60 °C  |

## Complementary

|                                 |  |
|---------------------------------|--|
| Coil technology                 | Without built-in suppressor module   |
| Control circuit voltage limits  | 0.85...1.1 Uc at 60 °C operational 60 Hz<br>0.8...1.1 Uc at 60 °C operational 50 Hz<br>0.3...0.6 Uc at 60 °C drop-out 50/60 Hz |
| Inrush power in VA              | 160 VA at 20 °C (cos φ 0.75) 50 Hz<br>140 VA at 20 °C (cos φ 0.75) 60 Hz   |
| Hold-in power consumption in VA | 15 VA at 20 °C (cos φ 0.3) 50 Hz<br>13 VA at 20 °C (cos φ 0.3) 60 Hz   |
| Heat dissipation                | 4...5 W at 50/60 Hz  |

## Environment

|                                       |   |
|---------------------------------------|---|
| IP degree of protection               | IP2x 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 in temperature   |
| Fire resistance                                       | 850 °C conforming to IEC 60695-2-1   |
| Flame retardance                                      | V1 conforming to UL 94   |
| Mechanical robustness                                 | Shocks contactor closed 15 Gn for 11 ms<br>Shocks contactor open 10 Gn for 11 ms<br>Vibrations contactor closed 4 Gn, 5...300 Hz<br>Vibrations contactor open 2 Gn, 5...300 Hz |
| Height  | 127 mm   |
| Width   | 85 mm  |
| Depth   | 125 mm   |
| Product weight  | 1.44 kg  |

### RoHS compliance

|                                |           |
|--------------------------------|-----------|
| RoHS EUR status                | Compliant |
| RoHS EUR conformity date(YYYW) | 0707      |

### Contractual warranty

|        |           |
|--------|-----------|
| Period | 18 months |
|--------|-----------|