

## Product data sheet Characteristics

LC1D258F7  
TeSys D contactor - 4P(2 NO + 2 NC) - AC-1 -  
<= 440 V 40 A - 110 V AC coil





## Main

|   |   |
|---|---|
| Range                                       | TeSys<br>TeSys Deca   |
| Product name                                | TeSys D<br>TeSys Deca   |
| 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              | Power circuit: $\leq 690$ V AC 25...400 Hz<br>Power circuit: $\leq 300$ V DC  |
| [Ie] rated operational current              | 40 A (at $\leq 60$ °C) at $\leq 440$ V AC AC-1 for power circuit  |
| Control circuit type                        | AC at 50/60 Hz  |
| [Uc] control circuit voltage                | 110 V AC 50/60 Hz   |
| 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 | 10 A (at $60$ °C) for signalling circuit<br>40 A (at $60$ °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    | 240 A $40$ °C - 10 s for power circuit<br>380 A $40$ °C - 1 s for power circuit<br>50 A $40$ °C - 10 min for power circuit<br>120 A $40$ °C - 1 min 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 $\leq 690$ V coordination type 1 for power circuit<br>40 A gG at $\leq 690$ 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 conforming to IEC 60947-4-1<br>Power circuit: 600 V CSA certified<br>Power circuit: 600 V UL certified<br>Signalling circuit: 690 V conforming to IEC 60947-1<br>Signalling circuit: 600 V CSA certified<br>Signalling circuit: 600 V UL certified                       |
| Electrical durability                       | 1.4 Mcycles 40 A AC-1 at $U_e \leq 440$ V   |
| Power dissipation per pole                  | 3.2 W AC-1  |
| Front 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<br>IEC 60335-1  |
| Product certifications   | GL<br>CCC<br>RINA<br>DNV<br>CSA<br>BV<br>GOST<br>UL<br>LROS (Lloyds register of shipping)<br>UKCA   |
| Connections - terminals  | Control circuit: screw clamp terminals 1 cable(s) 1...<br>4 mm <sup>2</sup> flexible without cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...<br>4 mm <sup>2</sup> flexible without cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1...<br>4 mm <sup>2</sup> flexible with cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...<br>2.5 mm <sup>2</sup> flexible with cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1...<br>4 mm <sup>2</sup> solid without cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...<br>4 mm <sup>2</sup> solid without cable end<br>Power circuit: connector 1 cable(s) 2.5...<br>10 mm <sup>2</sup> flexible without cable end<br>Power circuit: connector 2 cable(s) 2.5...<br>10 mm <sup>2</sup> flexible without cable end<br>Power circuit: connector 1 cable(s) 2.5...<br>10 mm <sup>2</sup> flexible with cable end<br>Power circuit: connector 2 cable(s) 2.5...<br>10 mm <sup>2</sup> flexible with cable end<br>Power circuit: connector 1 cable(s) 2.5...<br>16 mm <sup>2</sup> solid without cable end<br>Power circuit: connector 2 cable(s) 2.5...16 mm <sup>2</sup> solid<br>without cable end |
| Tightening torque        | Control circuit: 1.7 N.m - on screw clamp terminals -<br>with screwdriver flat Ø 6 mm<br>Control circuit: 1.7 N.m - on screw clamp terminals -<br>with screwdriver Philips No 2<br>Power circuit: 1.8 N.m - on connector - with<br>screwdriver flat Ø 6 mm<br>Power circuit: 1.8 N.m - on connector - with<br>screwdriver Philips No 2<br>Control circuit: 1.7 N.m - on screw clamp terminals -<br>with screwdriver pozidriv No 2<br>Power circuit: 2.5 N.m - on screw clamp terminals -<br>with screwdriver pozidriv No 2  |
| Operating time           | 12...22 ms closing<br>4...19 ms opening   |
| Safety reliability level | B10d = 1369863 cycles contactor with nominal load<br>conforming to EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical<br>load conforming to EN/ISO 13849-1  |
| Mechanical durability    | 15 Mcycles  |
| Maximum operating rate   | 3600 cyc/h 60 °C  |

## Complementary

|                                 |   |
|---------------------------------|---|
| Coil technology                 | Without built-in suppressor module  |
| Control circuit voltage limits  | 0.3...0.6 Uc (-40...70 °C):drop-out AC 50/60 Hz<br>0.8...1.1 Uc (-40...60 °C):operational AC 50 Hz<br>0.85...1.1 Uc (-40...60 °C):operational AC 60 Hz<br>1...1.1 Uc (60...70 °C):operational AC 50/60 Hz |
| Inrush power in VA              | 70 VA 60 Hz cos phi 0.75 (at 20 °C)<br>70 VA 50 Hz cos phi 0.75 (at 20 °C)  |
| Hold-in power consumption in VA | 7.5 VA 60 Hz cos phi 0.3 (at 20 °C)<br>7 VA 50 Hz cos phi 0.3 (at 20 °C)  |
| Heat dissipation                | 2...3 W at 50/60 Hz   |

|                              |  |
|------------------------------|--|
| 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 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 conforming to IEC 60529   |
| Protective treatment                  | TH conforming to IEC 60068-2-30   |
| Pollution degree                      | 3   |
| Ambient air temperature for operation | -40...60 °C<br>60...70 °C with derating   |
| Ambient air temperature for storage   | -60...80 °C   |
| Operating altitude                    | 0...3000 m  |
| 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                                | 105 mm  |
| Width                                 | 45 mm   |
| Depth                                 | 99 mm   |
| Net weight                            | 0.425 kg  |

## Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Weight             | 467 g    |
| Package 1 Height             | 5.5 cm   |
| Package 1 width              | 9.5 cm   |
| Package 1 Length             | 11.7 cm  |
| Unit Type of Package 2       | S02      |
| Number of Units in Package 2 | 16       |
| Package 2 Weight             | 7.948 kg |
| Package 2 Height             | 15 cm    |
| Package 2 width              | 30 cm    |
| Package 2 Length             | 40 cm    |

## Offer Sustainability

|                            |   |
|----------------------------|---|
| Sustainable offer status   | Green Premium product   |
| 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 |  Yes   |
| 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   |
| <b>Contractual warranty</b> |   |
| Warranty                    | 12 months   |