

# Product data sheet

Specifications



IEC contactor, TeSys Deca, nonreversing, 20A resistive, 4 pole, 4 NO, 120VAC 50/60Hz coil, open style

LC1DT20G7

Product availability: Stock - Normally stocked in distribution facility

Price\*: 126.00 USD

## Main

|                                |  |
|--------------------------------|--|
| Range                          | TeSys<br>TeSys Deca  |
| Range of Product               | TeSys Deca   |
| Product or Component Type      | Contactors   |
| Device short name              | LC1D   |
| contactor application          | Resistive load   |
| Utilisation category           | AC-1   |
| poles description              | 4P   |
| [Ue] rated operational voltage | Power circuit <= 690 V AC 25...400 Hz<br>Power circuit <= 300 V DC         |
| [Ie] rated operational current | 20 A (at <140.0000000000 °F (60 °C)) at <= 440 V AC AC-1 for power circuit |
| [Uc] control circuit voltage   | 120 V AC 50/60 Hz  |

## Complementary

|   |  |
|---|--|
| Compatibility code                          | LC1D   |
| Pole contact composition                    | 4 NO   |
| Protective cover                            | With   |
| [Ith] conventional free air thermal current | 10 A (at 140.0000000000 °F (60 °C)) for signalling circuit<br>20 A (at 140.0000000000 °F (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>250 A at 440 V for power circuit conforming to IEC 60947   |
| Rated breaking capacity                     | 250 A at 440 V for power circuit conforming to IEC 60947   |
| [Icw] rated short-time withstand current    | 30 A 104.0000000000 °F (40 °C) - 10 min for power circuit<br>61 A 104.0000000000 °F (40 °C) - 1 min for power circuit<br>105 A 104.0000000000 °F (40 °C) - 10 s for power circuit<br>210 A 104.0000000000 °F (40 °C) - 1 s 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>25 A gG at <= 690 V coordination type 1 for power circuit<br>20 A gG at <= 690 V coordination type 2 for power circuit   |
| Average impedance                           | 2.5 mOhm - Ith 20 A 50 Hz for power circuit  |
| Power dissipation per pole                  | 1.56 W AC-1  |

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

|   |  |
|---|--|
| <b>[Ui] rated insulation voltage</b>          | 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<br>Power circuit 690 V IEC 60947-4-1  |
| <b>Overvoltage category</b>                   | III  |
| <b>Pollution degree</b>                       | 3  |
| <b>[Uimp] rated impulse withstand voltage</b> | 6 kV IEC 60947   |
| <b>Safety reliability level</b>               | B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1   |
| <b>Mechanical durability</b>                  | 15 Mcycles   |
| <b>Control circuit type</b>                   | AC 50/60 Hz  |
| <b>Coil technology</b>                        | Without built-in suppressor module   |
| <b>Control circuit voltage limits</b>         | 0.3...0.6 U <sub>c</sub> -40.0000000000...158.0000000000 °F (-40...70 °C) drop-out AC 50/60 Hz<br>0.8...1.1 U <sub>c</sub> -40.0000000000...140.0000000000 °F (-40...60 °C) operational AC 50 Hz<br>0.85...1.1 U <sub>c</sub> -40.0000000000...140.0000000000 °F (-40...60 °C) operational AC 60 Hz<br>1...1.1 U <sub>c</sub> 140.0000000000...158.0000000000 °F (60...70 °C) operational AC 50/60 Hz  |
| <b>Inrush power in VA</b>                     | 70 VA 60 Hz cos phi 0.75 (at 68.0000000000 °F (20 °C))<br>70 VA 50 Hz cos phi 0.75 (at 68.0000000000 °F (20 °C))   |
| <b>Hold-in power consumption in VA</b>        | 7.5 VA 60 Hz cos phi 0.3 (at 68.0000000000 °F (20 °C))<br>7 VA 50 Hz cos phi 0.3 (at 68.0000000000 °F (20 °C))   |
| <b>Heat dissipation</b>                       | 2...3 W at 50/60 Hz  |
| <b>Operating time</b>                         | 4...19 ms opening<br>12...22 ms closing  |
| <b>Maximum operating rate</b>                 | 3600 cyc/h 140.0000000000 °F (60 °C)   |
| <b>Connections - terminals</b>                | Control circuit: screw clamp terminals 2 0.002...0.004 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) - cable stiffness: flexible with cable end<br>Control circuit: screw clamp terminals 1 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: flexible without cable end<br>Control circuit: screw clamp terminals 2 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: flexible without cable end<br>Control circuit: screw clamp terminals 1 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: flexible with cable end<br>Control circuit: screw clamp terminals 1 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: solid without cable end<br>Control circuit: screw clamp terminals 2 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: solid without cable end<br>Power circuit: screw clamp terminals 1 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: flexible without cable end<br>Power circuit: screw clamp terminals 2 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: flexible without cable end<br>Power circuit: screw clamp terminals 1 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: flexible with cable end<br>Power circuit: screw clamp terminals 2 0.002...0.004 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) - cable stiffness: flexible with cable end<br>Power circuit: screw clamp terminals 1 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: solid without cable end<br>Power circuit: screw clamp terminals 2 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: solid without cable end |
| <b>Tightening torque</b>                      | 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<br>Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm<br>Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2<br>Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2<br>Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2   |
| <b>Auxiliary contact composition</b>          | 1 NO + 1 NC  |

|                                     |   |
|-------------------------------------|---|
| <b>Auxiliary contacts type</b>      | Mechanically linked 1 NO + 1 NC IEC 60947-5-1<br>Mirror contact 1 NC IEC 60947-4-1                      |
| <b>Signalling circuit frequency</b> | 25...400 Hz   |
| <b>Minimum switching voltage</b>    | 17 V for signalling circuit   |
| <b>Minimum switching current</b>    | 5 mA for signalling circuit   |
| <b>Insulation resistance</b>        | > 10 MOhm for signalling circuit  |
| <b>Non-overlap time</b>             | 1.5 ms on de-energisation between NC and NO contact<br>1.5 ms on energisation between NC and NO contact |
| <b>Mounting Support</b>             | Plate<br>Rail   |

## Environment

|  |  |
|--|--|
| <b>Standards</b>   | 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   |
| <b>Product Certifications</b>                                | RINA<br>BV<br>GL<br>LROS (Lloyds register of shipping)<br>DNV<br>GOST<br>UL<br>CSA<br>CCC  |
| <b>IP degree of protection</b>                               | IP20 front face IEC 60529  |
| <b>Protective treatment</b>                                  | THIEC 60068-2-30   |
| <b>Climatic withstand</b>                                    | IACS E10 exposure to damp heat<br>IEC 60947-1 Annex Q category D exposure to damp heat   |
| <b>Permissible ambient air temperature around the device</b> | -40.0000000000...140.0000000000 °F (-40...60 °C)<br>140.0000000000...158.0000000000 °F (60...70 °C) with derating  |
| <b>Operating altitude</b>                                    | 0...9842.52 ft (0...3000 m)  |
| <b>Fire resistance</b>                                       | 1562.0000000000 °F (850 °C) IEC 60695-2-1  |
| <b>Flame retardance</b>                                      | V1 conforming to UL 94   |
| <b>Mechanical robustness</b>                                 | 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 10 Gn for 11 ms) |
| <b>Height</b>  | 3.3 in (85 mm)   |
| <b>Width</b>   | 1.8 in (45 mm)   |
| <b>Depth</b>   | 3.6 in (92 mm)   |
| <b>Net Weight</b>  | 0.805 lb(US) (0.365 kg)  |

## Ordering and shipping details

|                          |               |
|--------------------------|---------------|
| <b>Category</b>          | US10I1222354  |
| <b>Discount Schedule</b> | 0112          |
| <b>GTIN</b>              | 3389110298901 |
| <b>Returnability</b>     | Yes           |
| <b>Country of origin</b> | FR            |

## Packing Units

|                              |                          |
|------------------------------|--------------------------|
| Unit Type of Package 1       | PCE                      |
| Number of Units in Package 1 | 1                        |
| Package 1 Height             | 2.2 in (5.5 cm)          |
| Package 1 Width              | 3.7 in (9.5 cm)          |
| Package 1 Length             | 4.4 in (11.2 cm)         |
| Package 1 Weight             | 13.7 oz (389 g)          |
| Unit Type of Package 2       | S02                      |
| Number of Units in Package 2 | 16                       |
| Package 2 Height             | 5.9 in (15 cm)           |
| Package 2 Width              | 11.8 in (30 cm)          |
| Package 2 Length             | 15.7 in (40 cm)          |
| Package 2 Weight             | 14.967 lb(US) (6.789 kg) |

## Contractual warranty

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

## Sustainability

**Green Premium™ label** is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

[Guide to assess a product's sustainability >](#)



Transparency RoHS/REACH

## Well-being performance

✓ Toxic Heavy Metal Free

✓ Mercury Free

✓ Rohs Exemption Information [Yes](#)

✓ Pvc Free

## Certifications & Standards

|                                  |   |
|----------------------------------|---|
| <b>Reach Regulation</b>          | <a href="#">REACH Declaration</a>   |
| <b>Eu Rohs Directive</b>         | Compliant<br><a href="#">EU RoHS Declaration</a>  |
| <b>China Rohs Regulation</b>     | <a href="#">China RoHS declaration</a><br>Pro-active China RoHS declaration (out of China RoHS legal scope)   |
| <b>Environmental Disclosure</b>  | <a href="#">Product Environmental Profile</a>   |
| <b>Weee</b>                      | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.  |
| <b>Circularity Profile</b>       | <a href="#">End of Life Information</a>   |
| <b>California Proposition 65</b> | 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> |