

# Product datasheet

Specifications



## TeSys Deca contactor , 4P(4 NO) , AC-1 , <= 440V, 80 A , 250V DC standard coil

LC1DT80AUD

**Discontinued on:** Oct 10, 2020 AD

**Discontinued**

### Main

|                                |  |
|--------------------------------|--|
| Range                          | TeSys  |
| Range Of Product               | TeSys Deca   |
| Product Or Component Type      | Contactors   |
| Device Short Name              | LC1D   |
| Contactors 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 | 80 A (at <60 °C) at <= 440 V AC AC-1 for power circuit               |
| [Uc] Control Circuit Voltage   | 250 V DC   |

### Complementary

|   |  |
|---|--|
| Compatibility Code                          | LC1D   |
| Pole Contact Composition                    | 4 NO   |
| Contact Compatibility                       | M7   |
| Protective Cover                            | With   |
| [Ith] Conventional Free Air Thermal Current | 10 A (at 60 °C) for signalling circuit<br>80 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>1000 A at 440 V for power circuit conforming to IEC 60947  |
| Rated Breaking Capacity                     | 1000 A at 440 V for power circuit conforming to IEC 60947  |
| [Icw] Rated Short-Time Withstand Current    | 640 A 40 °C - 10 s for power circuit<br>900 A 40 °C - 1 s for power circuit<br>110 A 40 °C - 10 min for power circuit<br>260 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>125 A gG at <= 690 V coordination type 1 for power circuit<br>125 A gG at <= 690 V coordination type 2 for power circuit   |
| Average Impedance                           | 1.6 mOhm - Ith 80 A 50 Hz for power circuit  |
| Power Dissipation Per Pole                  | 10.2 W AC-1  |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

|   |  |
|---|--|
| <b>[Ui] Rated Insulation Voltage</b>          | 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<br>Power circuit: 690 V conforming to IEC 60947-4-1  |
| <b>Overvoltage Category</b>                   | III  |
| <b>Pollution Degree</b>                       | 3  |
| <b>[Uimp] Rated Impulse Withstand Voltage</b> | 6 kV conforming to IEC 60947   |
| <b>Safety Reliability Level</b>               | 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   |
| <b>Mechanical Durability</b>                  | 10 Mcycles   |
| <b>Electrical Durability</b>                  | 0.5 Mcycles 80 A AC-1 at Ue <= 440 V   |
| <b>Control Circuit Type</b>                   | DC standard  |
| <b>Coil Technology</b>                        | Built-in bidirectional peak limiting diode suppressor  |
| <b>Control Circuit Voltage Limits</b>         | 0.1...0.3 Uc (-40...70 °C):drop-out DC<br>0.75...1.25 Uc (-40...60 °C):operational DC<br>1...1.25 Uc (60...70 °C):operational DC   |
| <b>Inrush Power In W</b>                      | 19 W (at 20 °C)  |
| <b>Hold-In Power Consumption In W</b>         | 7.4 W at 20 °C   |
| <b>Operating Time</b>                         | 50 ±15 % ms closing<br>16...24 ms opening  |
| <b>Time Constant</b>                          | 34 ms  |
| <b>Maximum Operating Rate</b>                 | 3600 cyc/h 60 °C   |
| <b>Connections - Terminals</b>                | Control circuit: screw clamp terminals 2 1...2.5 mm² - cable stiffness: flexible with cable end<br>Control circuit: screw clamp terminals 1 1...4 mm² - cable stiffness: flexible without cable end<br>Control circuit: screw clamp terminals 2 1...4 mm² - cable stiffness: flexible without cable end<br>Control circuit: screw clamp terminals 1 1...4 mm² - cable stiffness: flexible with cable end<br>Control circuit: screw clamp terminals 1 1...4 mm² - cable stiffness: solid without cable end<br>Control circuit: screw clamp terminals 2 1...4 mm² - cable stiffness: solid without cable end<br>Power circuit: EverLink BTR screw connectors 1 1...35 mm² - cable stiffness: flexible without cable end<br>Power circuit: EverLink BTR screw connectors 2 1...25 mm² - cable stiffness: flexible without cable end<br>Power circuit: EverLink BTR screw connectors 1 1...35 mm² - cable stiffness: flexible with cable end<br>Power circuit: EverLink BTR screw connectors 2 1...25 mm² - cable stiffness: flexible with cable end<br>Power circuit: EverLink BTR screw connectors 1 1...35 mm² - cable stiffness: solid without cable end<br>Power circuit: EverLink BTR screw connectors 2 1...25 mm² - cable stiffness: solid without cable end |
| <b>Tightening Torque</b>                      | 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: 8 N.m - on screw clamp terminals - cable 25...35 mm² hexagonal screw head 4 mm<br>Power circuit: 5 N.m - on screw clamp terminals - cable 1...25 mm² hexagonal screw head 4 mm   |
| <b>Auxiliary Contact Composition</b>          | 1 NO + 1 NC  |
| <b>Auxiliary Contacts Type</b>                | 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   |
| <b>Signalling Circuit Frequency</b>           | 25...400 Hz  |
| <b>Minimum Switching Voltage</b>              | 17 V for signalling circuit  |

|                           |   |
|---------------------------|---|
| Minimum Switching Current | 5 mA for signalling circuit   |
| Insulation Resistance     | > 10 MOhm 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 |
| Mounting Support          | Rail<br>Plate   |

## Environment

|   |  |
|---|--|
| 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                                | GL<br>CCC<br>CSA<br>BV<br>RINA<br>DNV<br>LROS (Lloyds register of shipping)<br>UL<br>GOST  |
| Ip Degree Of Protection                               | IP20 front face conforming to IEC 60529  |
| Protective Treatment                                  | TH conforming to IEC 60068-2-30  |
| Climatic Withstand                                    | conforming to IACS E10 exposure to damp heat<br>conforming to IEC 60947-1 Annex Q category D exposure to damp heat   |
| Permissible Ambient Air Temperature Around The Device | -40...60 °C<br>60...70 °C with derating  |
| 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 (10 Gn for 11 ms) |
| Height  | 122 mm   |
| Width   | 70 mm  |
| Depth   | 120 mm   |
| Net Weight  | 1.225 kg   |

## Packing Units

|                              |        |
|------------------------------|--------|
| Unit Type Of Package 1       | PCE    |
| Number Of Units In Package 1 | 1      |
| Package 1 Height             | 7.5 cm |
| Package 1 Width              | 14 cm  |
| Package 1 Length             | 15 cm  |
| Package 1 Weight             | 1.1 kg |

## Contractual warranty

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

# Sustainability

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

## Well-being performance

|  |  |
|--|--|
| <div><div>✓</div><div>Reach Free Of Svhc</div></div>         |  |
| <div><div>✓</div><div>Toxic Heavy Metal Free</div></div>     |  |
| <div><div>✓</div><div>Mercury Free</div></div>               |  |
| <div><div>✓</div><div>Rohs Exemption Information</div></div> | <div>Yes</div>   |
| <div><div>✓</div><div>Pvc Free</div></div>                   |  |
| <div>Eu Rohs Directive</div>                                 | <div>Compliant</div> <div><a href="#">EU RoHS Declaration</a></div>  |
| <div>China Rohs Regulation</div>                             | <div><a href="#">China RoHS declaration</a></div> <div>Pro-active China RoHS declaration (out of China RoHS legal scope)</div>         |
| <div>Weeee</div>   | <div>The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins</div> |