# **Product data sheet**

Specification





# Contactor, TeSys Deca, 4P(4 NO), AC-1, <=440V, 20A, 60VDC standard coil, screw clamp terminal

LC1DT20ND

### Main

| Range                          | TeSys<br>TeSys Deca   |  |
|--------------------------------|---|--|
| Range Of Product               | TeSys Deca  |  |
| Product Or Component Type      | Contactor   |  |
| Device Short Name              | LC1D  |  |
| Contactor Application          | Resistive load  |  |
| Utilisation Category           | AC-1  |  |
| Poles Description              | 4P  |  |
| [Ue] Rated Operational Voltage | Power circuit <= 690 V AC 25400 Hz<br>Power circuit <= 300 V DC |  |
| [le] Rated Operational Current | 20 A (at <140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit |  |
| [Uc] Control Circuit Voltage   | 60 V DC   |  |

## Complementary

| Compatibility Code                             | LC1D   |
|--|--|
| Pole Contact Composition                       | 4 NO   |
| Protective Cover                               | With   |
| [Ith] Conventional Free Air<br>Thermal Current | 10 A (at 140 °F (60 °C)) for signalling circuit<br>20 A (at 140 °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 °F (40 °C) - 10 min for power circuit 61 A 104 °F (40 °C) - 1 min for power circuit 105 A 104 °F (40 °C) - 10 s for power circuit 210 A 104 °F (40 °C) - 1 s for power circuit 100 A - 1 s for signalling circuit 120 A - 500 ms for signalling circuit 140 A - 100 ms for signalling circuit |
| Associated Fuse Rating                         | 10 A gG for signalling circuit conforming to IEC 60947-5-1 25 A gG at <= 690 V coordination type 1 for power circuit 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  |

| Power circuit 600 V CSA Power circuit 600 V UL  |
|---|
| Signalling circuit 690 V IEC 60947-1  |
| Signalling circuit 600 V CSA<br>Signalling circuit 600 V UL   |
| Power circuit 690 V IEC 60947-4-1   |
| III   |
| 3   |
| 6 kV IEC 60947  |
| B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1  |
| 30 Mcycles  |
| DC standard   |
| Built-in bidirectional peak limiting diode suppressor   |
| 0.10.25 Uc -40158 °F (-4070 °C) drop-out DC 0.71.25 Uc -40140 °F (-4060 °C) operational DC 11.25 Uc 140158 °F (6070 °C) operational DC  |
| 5.4 W 68 °F (20 °C))  |
| 5.4 W 68 °F (20 °C)   |
| 20 ±20 % ms opening<br>63 ±15 % ms closing  |
| 28 ms   |
| 3600 cyc/h 140 °F (60 °C)   |
| Control circuit: screw clamp terminals 2 0.000.00 in² (12.5 mm²) - cable stiffness: flexible with cable end  Control circuit: screw clamp terminals 1 0.000.01 in² (14 mm²) - cable stiffness: flexible without cable end  Control circuit: screw clamp terminals 2 0.000.01 in² (14 mm²) - cable stiffness: flexible without cable end  Control circuit: screw clamp terminals 1 0.000.01 in² (14 mm²) - cable stiffness: flexible with cable end  Control circuit: screw clamp terminals 1 0.000.01 in² (14 mm²) - cable stiffness: solid without cable end  Control circuit: screw clamp terminals 2 0.000.01 in² (14 mm²) - cable stiffness: solid without cable end  Power circuit: screw clamp terminals 1 0.000.01 in² (14 mm²) - cable stiffness: flexible without cable end  Power circuit: screw clamp terminals 2 0.000.01 in² (14 mm²) - cable stiffness: flexible without cable end  Power circuit: screw clamp terminals 1 0.000.01 in² (14 mm²) - cable stiffness: flexible with cable end  Power circuit: screw clamp terminals 2 0.000.00 in² (12.5 mm²) - cable stiffness: flexible with cable end  Power circuit: screw clamp terminals 1 0.000.01 in² (14 mm²) - cable stiffness: solid without cable end  Power circuit: screw clamp terminals 1 0.000.01 in² (14 mm²) - cable stiffness: solid without cable end  Power circuit: screw clamp terminals 1 0.000.01 in² (14 mm²) - cable stiffness: solid without cable end |
| Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2 Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2 Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2 Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2   |
| 1 NO + 1 NC   |
| Mechanically linked 1 NO + 1 NC IEC 60947-5-1<br>Mirror contact 1 NC IEC 60947-4-1  |
| 25400 Hz  |
| 17 V for signalling circuit   |
| 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 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  |  |

| 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<br>IEC 60335-1  |
| Product Certifications                                   | BV GL UL RINA GOST CCC DNV LROS (Lloyds register of shipping) CSA   |
| Ip Degree Of Protection                                  | IP20 front face IEC 60529   |
| <b>Protective Treatment</b>                              | THIEC 60068-2-30  |
| Climatic Withstand                                       | IACS E10 exposure to damp heat<br>IEC 60947-1 Annex Q category D exposure to damp heat  |
| Permissible Ambient Air<br>Temperature Around The Device | -40140 °F (-4060 °C)<br>140158 °F (6070 °C) with derating   |
| Operating Altitude                                       | 03000 m   |
| Fire Resistance  | 1562 °F (850 °C) IEC 60695-2-1  |
| Flame Retardance   | V1 UL 94  |
| Mechanical Robustness                                    | Vibrations contactor open 2 Gn, 5300 Hz) Vibrations contactor closed 4 Gn, 5300 Hz) Shocks contactor closed 15 Gn for 11 ms) Shocks contactor open 10 Gn for 11 ms) |
| Height   | 3.35 in (85 mm)   |
| Width  | 1.77 in (45 mm)   |
| Depth  | 3.90 in (99 mm)   |
| Net Weight   | 0.80 lb(US) (0.365 kg)  |
|  |   |

## **Packing Units**

| Unit Type Of Package 1       | PCE                |
|------------------------------|--------------------|
| Number Of Units In Package 1 | 1                  |
| Package 1 Height             | 3.34 in (8.48 cm)  |
| Package 1 Width              | 1.80 in (4.58 cm)  |
| Package 1 Length             | 3.62 in (9.2 cm)   |
| Package 1 Weight             | 19.75 oz (560.0 g) |

## **Contractual warranty**

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



**Green Premium<sup>TM</sup> label** is Schneider Electric's commitment to delivering products with best-inclass 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

| <b>Ø</b> | Mercury Free               |     |
|----------|----------------------------|-----|
| <b>9</b> | Rohs Exemption Information | Yes |
| <b>②</b> | Pvc Free                   |     |

#### **Certifications & Standards**

| Reach Regulation         | REACh Declaration   |
|--------------------------|---|
| Eu Rohs Directive        | Compliant with Exemptions   |
| China Rohs Regulation    | China RoHS declaration  Product out of China RoHS scope. Substance declaration for your information |
| Environmental Disclosure | Product Environmental Profile   |
| Circularity Profile      | End of Life Information   |