# Product data sheet

Specifications





## IEC contactor, TeSys D, nonreversing, 50A, 40HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, 24VDC coil, open

LC1D50BD

Product availability: Stock - Normally stocked in distribution facility

#### Price\*: 404.00 USD

| Main                           |  |  |
|--------------------------------|--|--|
| Range                          | TeSys  |  |
| Range Of Product               | TeSys Deca   |  |
| Product Or Component Type      | Contactor  |  |
| Device Short Name              | LC1D   |  |
| Contactor Application          | Resistive load<br>Resistive load   |  |
| Utilisation Category           | AC-2<br>AC-4<br>AC-3<br>AC-3e<br>AC-4  |  |
| Poles Description              | 3P   |  |
| [Ue] Rated Operational Voltage | Power circuit <= 690 V AC 25400 Hz   |  |
| [le] Rated Operational Current | 80 A (at <140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit<br>50 A (at <140 °F (60 °C)) at <= 440 V AC AC-3e for power circuit<br>50 A (at <140 °F (60 °C)) at <= 440 V AC AC-3 for power circuit |  |
| [Uc] Control Circuit Voltage   | 24 V DC  |  |

### Complementary

| Motor Power Kw             |   |
|----------------------------|---|
|                            | 25 kW at 415 V AC 50 Hz (AC-3)                  |
|                            | 30 kW at 440 V AC 50 Hz (AC-3)                  |
|                            | 30 kW at 500 V AC 50 Hz (AC-3)                  |
|                            | 33 kW at 660690 V AC 50 Hz (AC-3)               |
|                            | 15 kW at 220230 V AC 50 Hz (AC-3)               |
|                            | 11 kW at 400 V AC 50 Hz (AC-4)                  |
|                            | 30 kW at 1000 V AC 50 Hz (AC-3)                 |
|                            | 22 kW at 380400 V AC 50 Hz (AC-3e)              |
|                            | 25 kW at 415 V AC 50 Hz (AC-3e)                 |
|                            | 30 kW at 440 V AC 50 Hz (AC-3e)                 |
|                            | 30 kW at 500 V AC 50 Hz (AC-3e)                 |
|                            | 33 kW at 660690 V AC 50 Hz (AC-3e)              |
|                            | 15 kW at 220230 V AC 50 Hz (AC-3e)              |
|                            | 30 kW at 1000 V AC 50 Hz (AC-3e)                |
|                            | 22 kW at 380400 V AC 50 Hz (AC-3)               |
| Maximum Horse Power Rating | 7.5 hp at 230/240 V AC 60 Hz for 1 phase motors |
|                            | 15 hp at 200/208 V AC 60 Hz for 3 phase motors  |
|                            | 15 hp at 230/240 V AC 60 Hz for 3 phase motors  |
|                            | 40 hp at 460/480 V AC 60 Hz for 3 phase motors  |
|                            | 40 hp at 575/600 V AC 60 Hz for 3 phase motors  |
|                            | 3 hp at 115 V AC 60 Hz for 1 phase motors       |
| Compatibility Code         | LC1D  |
| Pole Contact Composition   | 3 NO  |

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

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

| Protective Cover                               | With   |
|--|--|
| [Ith] Conventional Free Air<br>Thermal Current | 80 A (at 140 °F (60 °C)) for power circuit<br>10 A (at 140 °F (60 °C)) for control circuit   |
| Irms Rated Making Capacity                     | 900 A at 440 V DC for power circuit conforming to IEC 60947<br>900 A at 440 V for power circuit conforming to IEC 60947<br>250 A DC for control circuit conforming to IEC 60947-5-1  |
| Rated Breaking Capacity                        | 900 A at 440 V for power circuit conforming to IEC 60947   |
| Associated Fuse Rating                         | 100 A gG at <= 690 V coordination type 1 for power circuit<br>100 A gG at <= 690 V coordination type 2 for power circuit conforming to IEC<br>60947-5-1<br>10 A gG for control circuit conforming to IEC 60947-5-1                       |
| Power Dissipation Per Pole                     | 9.6 W AC-1<br>3.7 W AC-3e<br>3.7 W AC-3  |
| [Ui] Rated Insulation Voltage                  | Control circuit 600 V UL<br>Power circuit 600 V CSA<br>Power circuit 600 V UL IEC 60947-1<br>Control circuit 690 V IEC 60947-1<br>Power circuit 690 V IEC 60947-1<br>Power circuit 1000 V CSA IEC 60947-4-1<br>Control circuit 600 V CSA |
| Overvoltage Category                           | III  |
| [Uimp] Rated Impulse Withstand<br>Voltage      | 8 kV IEC 60947   |
| Safety Reliability Level                       | B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1<br>B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1   |
| Mechanical Durability                          | 10000000 cycles  |
| Control Circuit Type                           | DC wide range  |
| Coil Technology                                | Built-in bidirectional peak limiting diode suppressor  |
| Control Circuit Voltage Limits                 | 0.751.25 Uc -40140 °F (-4060 °C) operational DC<br>11.25 Uc 140158 °F (6070 °C) operational DC<br>0.10.3 Uc -40158 °F (-4070 °C) drop-out DC   |
| Inrush Power In W                              | 19 W 68 °F (20 °C))  |
| Hold-In Power Consumption In W                 | 7.4 W 68 °F (20 °C)  |
| Rated Operational Power In W                   | 48 W 24 V DC-13 3000000 cycles - control circuit<br>96 W 24 V DC-13 1000000 cycles - control circuit<br>14 W 24 V DC-13 10000000 cycles - control circuit  |
| Operating Time                                 | 50 ±15 % ms closing<br>20 ±20 % ms opening   |
| Time Constant                                  | 34 ms  |
| Maximum Operating Rate                         | 3600 cyc/h 140 °F (60 °C)  |

| Connections - Terminals       | Control circuit: screw clamp terminals 2 0.000.01 in <sup>2</sup> (14 mm <sup>2</sup> ) - cable stiffness:<br>rigid without cable end |
|-------------------------------|---|
|                               | Control circuit: screw clamp terminals 1 0.000.01 in <sup>2</sup> (14 mm <sup>2</sup> ) - cable stiffness:                            |
|                               | flexible without cable end  |
|                               | Control circuit: screw clamp terminals 2 0.000.01 in <sup>2</sup> (14 mm <sup>2</sup> ) - cable stiffness:                            |
|                               | flexible without cable end  |
|                               | Control circuit: screw clamp terminals 1 0.000.00 in <sup>2</sup> (12.5 mm <sup>2</sup> ) - cable stiffness:                          |
|                               | flexible with cable end   |
|                               | Control circuit: screw clamp terminals 2 0.000.00 in <sup>2</sup> (12.5 mm <sup>2</sup> ) - cable stiffness:                          |
|                               | flexible with cable end<br>Power circuit: screw terminals 1 0.000.04 in² (2.525 mm²) - cable stiffness: rigid                         |
|                               | Power circuit: screw terminals 1 0.000.04 in (2.516 mm <sup>2</sup> ) - cable stiffness: rigid  |
|                               | without cable end   |
|                               | Power circuit: screw terminals 1 0.000.04 in <sup>2</sup> (2.525 mm <sup>2</sup> ) - cable stiffness:                                 |
|                               | flexible without cable end  |
|                               | Power circuit: screw terminals 2 0.000.02 in <sup>2</sup> (2.516 mm <sup>2</sup> ) - cable stiffness:                                 |
|                               | flexible without cable end  |
|                               | Power circuit: screw terminals 1 0.000.04 in <sup>2</sup> (2.525 mm <sup>2</sup> ) - cable stiffness:                                 |
|                               | flexible with cable end   |
|                               | Power circuit: screw terminals 2 0.000.02 in <sup>2</sup> (2.510 mm <sup>2</sup> ) - cable stiffness:                                 |
|                               | flexible with cable end   |
|                               | Control circuit: screw clamp terminals 2 0.000.01 in <sup>2</sup> (14 mm <sup>2</sup> ) - cable stiffness:                            |
|                               | rigid<br>Control circuit: screw clamp terminals 1 0.000.01 in² (14 mm²) - cable stiffness:  |
|                               | rigid   |
|                               |   |
| Tightening Torque             | Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminal Philips No 2  |
|                               | Power circuit 44.25 lbf.in (5 N.m) screw terminal flat Ø 6 to Ø 8 mm  |
|                               | Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminal pozidriv No 2   |
|                               | Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminal flat Ø 6 mm   |
| Auxiliary Contact Composition | 1 NO + 1 NC   |
| Auxiliary Contacts Type       | Mirror contact 1 NC IEC 60947-4-1   |
|                               | Mechanically linked 1 NO + 1 NC IEC 60947-5-1   |
|                               | ·   |
| Minimum Switching Voltage     | 17 V for control circuit  |
| Minimum Switching Current     | 5 mA for control circuit  |
| Insulation Resistance         | > 10 MOhm for control circuit   |
| Non-Overlap Time              | 1.5 ms on energisation between NC and NO contacts   |
|                               | 1.5 ms on de-energisation between NC and NO contacts  |
| Mounting Support              | Plate   |
| 5                             | Plate   |
|                               |   |

### Environment

| Standards               | CSA C22.2 No 14<br>IEC 60947-5-1<br>EN 60947-4-1<br>EN 60947-5-1<br>IEC 60947-4-1 |  |
|-------------------------|---|--|
| Product Certifications  | CSA<br>DNV<br>RINA<br>BV<br>CCC<br>UL<br>GOST<br>GL<br>UKCA<br>CCC                |  |
| Ip Degree Of Protection | IP2X VDE 0106<br>IP2X IEC 60529   |  |
| Climatic Withstand      | IACS E10 exposure to damp heat  |  |
| Operating Altitude      | 09842.52 ft (03000 m)   |  |
| Fire Resistance         | 1562 °F (850 °C) IEC 60695-2-1  |  |
| Flame Retardance        | V1 conforming to UL 94  |  |

| Mechanical Robustness | Shocks contactor closed 15 Gn for 11 ms)<br>Vibrations contactor opened 2 Gn, 5300 Hz)<br>Vibrations contactor closed 4 Gn, 5300 Hz)<br>Shocks contactor opened 10 Gn for 11 ms) |
|-----------------------|--|
| Height                | 5.00 in (127 mm)   |
| Width                 | 3.35 in (85 mm)  |
| Depth                 | 6.93 in (176 mm)   |
| Net Weight            | 4.82 lb(US) (2.185 kg)   |

### Ordering and shipping details

| Category          | US10I1222358  |
|-------------------|---------------|
| Discount Schedule | 0112          |
| Gtin              | 3389110420814 |
| Returnability     | Yes           |
| Country Of Origin | CZ            |

# **Packing Units**

| Unit Type Of Package 1       | PCE                     |
|------------------------------|-------------------------|
| Number Of Units In Package 1 | 1                       |
| Package 1 Height             | 3.54 in (9.0 cm)        |
| Package 1 Width              | 5.51 in (14.0 cm)       |
| Package 1 Length             | 7.28 in (18.5 cm)       |
| Package 1 Weight             | 4.78 lb(US) (2.169 kg)  |
| Unit Type Of Package 2       | S02                     |
| Number Of Units In Package 2 | 2                       |
| Package 2 Height             | 5.91 in (15 cm)         |
| Package 2 Width              | 11.81 in (30 cm)        |
| Package 2 Length             | 15.75 in (40 cm)        |
| Package 2 Weight             | 10.65 lb(US) (4.829 kg) |

#### **Contractual warranty**

Warranty

18 months

### Sustainability Screen Premium

**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

Reach Free Of Svhc
Toxic Heavy Metal Free
Mercury Free
Rohs Exemption Information Yes
Pvc Free

#### **Certifications & Standards**

| Reach Regulation          | REACh Declaration   |
|---------------------------|---|
| Eu Rohs Directive         | Compliant<br>EU RoHS Declaration  |
| China Rohs Regulation     | China RoHS declaration<br>Pro-active China RoHS declaration (out of China RoHS legal scope)   |
| Environmental Disclosure  | Product Environmental Profile   |
| Weee                      | The product must be disposed on European Union markets following specific waste<br>collection and never end up in rubbish bins.   |
| Circularity Profile       | No need of specific recycling operations  |
| California Proposition 65 | 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 www.P65Warnings.ca.gov |