

# Product datasheet

Specifications



TeSys; TeSys Deca, Contactor,  
3P(3 NO), AC-3/AC-3e, 0 to 440V,  
12A, 24-60VAC/DC coil

LC1D12BNE

## Main

|                                |  |
|--------------------------------|--|
| Range                          | TeSys<br>TeSys Deca  |
| Range Of Product               | TeSys Deca   |
| Product Or Component Type      | Contactors   |
| Device Short Name              | LC1D   |
| Contactors Application         | Resistive load<br>Motor control  |
| Utilisation Category           | AC-3<br>AC-1<br>AC-3e  |
| Poles Description              | 3P   |
| [Ue] Rated Operational Voltage | Power circuit: $\leq 690$ V AC 25...400 Hz   |
| [Ie] Rated Operational Current | 25 A (at $\leq 60$ °C) at $\leq 440$ V AC-1 for power circuit<br>12 A (at $\leq 60$ °C) at $\leq 440$ V AC-3 for power circuit<br>12 A (at $\leq 60$ °C) at $\leq 440$ V AC-3e for power circuit |
| [Uc] Control Circuit Voltage   | 24...60 V AC 50/60 Hz<br>24...60 V DC  |

## Complementary

|   |  |
|---|--|
| Motor Power Kw                              | 3 kW at 220...230 V AC 50 Hz (AC-3)<br>5.5 kW at 380...400 V AC 50 Hz (AC-3)<br>5.5 kW at 415 V AC 50 Hz (AC-3)<br>5.5 kW at 440 V AC 50 Hz (AC-3)<br>7.5 kW at 500 V AC 50 Hz (AC-3)<br>7.5 kW at 660...690 V AC 50 Hz (AC-3)<br>3 kW at 220...230 V AC 50 Hz (AC-3e)<br>5.5 kW at 380...400 V AC 50 Hz (AC-3e)<br>5.5 kW at 415 V AC 50 Hz (AC-3e)<br>5.5 kW at 440 V AC 50 Hz (AC-3e)<br>7.5 kW at 500 V AC 50 Hz (AC-3e)<br>7.5 kW at 660...690 V AC 50 Hz (AC-3e) |
| Motor Power Hp                              | 0.5 hp at 115 V AC 60 Hz for 1 phase motors<br>2 hp at 230/240 V AC 60 Hz for 1 phase motors<br>3 hp at 200/208 V AC 60 Hz for 3 phases motors<br>3 hp at 230/240 V AC 60 Hz for 3 phases motors<br>7.5 hp at 460/480 V AC 60 Hz for 3 phases motors<br>10 hp at 575/600 V AC 60 Hz for 3 phases motors  |
| Compatibility Code                          | LC1D   |
| Pole Contact Composition                    | 3 NO   |
| Protective Cover                            | With   |
| [Ith] Conventional Free Air Thermal Current | 10 A (at 60 °C) for signalling circuit<br>25 A (at 60 °C) for power circuit  |

|   |  |
|---|--|
| <b>Irms Rated Making Capacity</b>               | 250 A at 440 V for power circuit conforming to IEC 60947<br>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   |
| <b>Rated Breaking Capacity</b>                  | 250 A at 440 V for power circuit conforming to IEC 60947   |
| <b>[Icw] Rated Short-Time Withstand Current</b> | 100 A - 1 s for signalling circuit<br>120 A - 500 ms for signalling circuit<br>140 A - 100 ms for signalling circuit<br>30 A 40 °C - 10 min for power circuit<br>61 A 40 °C - 1 min for power circuit<br>105 A 40 °C - 10 s for power circuit<br>210 A 40 °C - 1 s for power circuit |
| <b>Associated Fuse Rating</b>                   | 10 A gG for signalling circuit conforming to IEC 60947-5-1<br>40 A gG at <= 690 V coordination type 1 for power circuit<br>25 A gG at <= 690 V coordination type 2 for power circuit   |
| <b>Average Impedance</b>                        | 2.5 mOhm - Ith 25 A 50 Hz for power circuit  |
| <b>Power Dissipation Per Pole</b>               | 1.56 W AC-1<br>0.36 W AC-3<br>0.36 W AC-3e   |
| <b>[Ui] Rated Insulation Voltage</b>            | Power circuit: 690 V conforming to IEC 60947-4-1<br>Signalling circuit: 690 V conforming to IEC 60947-1  |
| <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>                    | 15 Mcycles   |
| <b>Electrical Durability</b>                    | 2.3 Mcycles 11 A AC-3 at Ue <= 440 V<br>0.8 Mcycles 25 A AC-1 at Ue <= 440 V<br>2.3 Mcycles 11 A AC-3e at Ue <= 440 V  |
| <b>Control Circuit Type</b>                     | AC/DC at 50/60 Hz AC/DC electronic   |
| <b>Coil Technology</b>                          | Built-in bidirectional peak limiting   |
| <b>Control Circuit Voltage Limits</b>           | <= 0.1 Uc (-40...70 °C):drop-out AC/DC<br>0.85...1.1 Uc (-40...60 °C):operational AC<br>0.8...1.1 Uc (-40...60 °C):operational DC<br>1...1.1 Uc (60...70 °C):operational AC/DC   |
| <b>Inrush Power In Va</b>                       | 15 VA 50/60 Hz (at 20 °C)  |
| <b>Inrush Power In W</b>                        | 14 W (at 20 °C)  |
| <b>Hold-In Power Consumption In Va</b>          | 0.9 VA 50/60 Hz (at 20 °C)   |
| <b>Hold-In Power Consumption In W</b>           | 0.6 W at 20 °C   |
| <b>Heat Dissipation</b>                         | 0.6 W at 50/60 Hz  |
| <b>Operating Time</b>                           | 45...55 ms closing<br>20...90 ms opening   |
| <b>Maximum Operating Rate</b>                   | 3600 cyc/h 60 °C   |

|                                      |  |
|--------------------------------------|--|
| <b>Connections - Terminals</b>       | Control circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: flexible without cable end<br>Control circuit: screw clamp terminals 2 1...4 mm <sup>2</sup> - cable stiffness: flexible without cable end<br>Control circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: flexible with cable end<br>Control circuit: screw clamp terminals 2 1...2.5 mm <sup>2</sup> - cable stiffness: flexible with cable end<br>Control circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: solid<br>Control circuit: screw clamp terminals 2 1...4 mm <sup>2</sup> - cable stiffness: solid<br>Power circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: flexible without cable end<br>Power circuit: screw clamp terminals 2 1...4 mm <sup>2</sup> - cable stiffness: flexible without cable end<br>Power circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: flexible with cable end<br>Power circuit: screw clamp terminals 2 1...2.5 mm <sup>2</sup> - cable stiffness: flexible with cable end<br>Power circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: solid<br>Power circuit: screw clamp terminals 2 1...4 mm <sup>2</sup> - cable stiffness: solid |
| <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: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm<br>Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2<br>Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2<br>Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2   |
| <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  |
| <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>              | Rail<br>Plate  |

## Environment

|  |  |
|--|--|
| <b>Standards</b>   | EN/IEC 60947-4-1<br>EN/IEC 60947-5-1<br>UL 60947-4-1<br>CSA C22.2 No 60947-4-1<br>IEC 60335-1                      |
| <b>Product Certifications</b>                                | CCC<br>CSA<br>EAC<br>UL<br>KC<br>DNV-GL<br>LROS (Lloyds register of shipping)<br>UKCA                              |
| <b>Ip Degree Of Protection</b>                               | IP20 front face conforming to IEC 60529  |
| <b>Climatic Withstand</b>                                    | conforming to IACS E10 exposure to damp heat<br>conforming to IEC 60947-1 Annex Q category D exposure to damp heat |
| <b>Permissible Ambient Air Temperature Around The Device</b> | -40...60 °C<br>60...70 °C with derating  |
| <b>Operating Altitude</b>                                    | 0...3000 m   |
| <b>Fire Resistance</b>                                       | 850 °C conforming to 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 open (10 Gn for 11 ms)<br>Shocks contactor closed (15 Gn for 11 ms) |
| <b>Height</b>                | 77 mm  |
| <b>Width</b>                 | 45 mm  |
| <b>Depth</b>                 | 86 mm  |
| <b>Net Weight</b>            | 0.373 kg   |

## Packing Units

|                                     |           |
|-------------------------------------|-----------|
| <b>Unit Type Of Package 1</b>       | PCE       |
| <b>Number Of Units In Package 1</b> | 1         |
| <b>Package 1 Height</b>             | 5.700 cm  |
| <b>Package 1 Width</b>              | 9.500 cm  |
| <b>Package 1 Length</b>             | 12.000 cm |
| <b>Package 1 Weight</b>             | 396.000 g |
| <b>Unit Type Of Package 2</b>       | S02       |
| <b>Number Of Units In Package 2</b> | 15        |
| <b>Package 2 Height</b>             | 15.000 cm |
| <b>Package 2 Width</b>              | 30.000 cm |
| <b>Package 2 Length</b>             | 40.000 cm |
| <b>Package 2 Weight</b>             | 6.218 kg  |

## Contractual warranty

|                 |           |
|-----------------|-----------|
| <b>Warranty</b> | 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

✓ Mercury Free

✓ Rohs Exemption Information [Yes](#)

✓ Halogen Free Plastic Parts & Cables Product

## 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](#)

Weee The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Circularity Profile [End of Life Information](#)