

# LC1D50ABBE

IEC contactor, TeSys Deca Green,  
nonreversing, 50A, 40HP at 480VAC, up to  
100kA SCCR, 3 phase, 3 NO, 24VDC



## Main

|                                |                                                                                                                                                        |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                          | TeSys<br>TeSys Deca                                                                                                                                    |
| Range of Product               | TeSys Deca                                                                                                                                             |
| Product or Component Type      | Contacteur                                                                                                                                             |
| Device short name              | LC1D                                                                                                                                                   |
| Contacteur application         | Resistive load<br>Motor control                                                                                                                        |
| Utilisation category           | AC-1<br>AC-3<br>AC-3e                                                                                                                                  |
| Poles description              | 3P                                                                                                                                                     |
| [Ue] rated operational voltage | Power circuit <= 690 V AC 25...400 Hz                                                                                                                  |
| [Ie] rated operational current | 80 A 140 °F (60 °C) <= 440 V AC-1 power circuit<br>50 A 140 °F (60 °C) <= 440 V AC-3 power circuit<br>50 A 140 °F (60 °C) <= 440 V AC-3e power circuit |
| [Uc] control circuit voltage   | 24 V DC                                                                                                                                                |

## Complementary

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Motor power kW                              | 15 KW 220...230 V AC 50 Hz AC-3)<br>22 KW 380...400 V AC 50 Hz AC-3)<br>25 KW 415 V AC 50 Hz AC-3)<br>30 KW 440 V AC 50 Hz AC-3)<br>30 KW 500 V AC 50 Hz AC-3)<br>33 KW 660...690 V AC 50 Hz AC-3)<br>15 KW 220...230 V AC 50 Hz AC-3e)<br>22 KW 380...400 V AC 50 Hz AC-3e)<br>25 KW 415 V AC 50 Hz AC-3e)<br>30 KW 440 V AC 50 Hz AC-3e)<br>30 KW 500 V AC 50 Hz AC-3e)<br>33 kW 660...690 V AC 50 Hz AC-3e) |
| Maximum Horse Power Rating                  | 3 Hp 115 V at AC 60 Hz for 1 phase<br>7.5 Hp 230/240 V at AC 60 Hz for 1 phase<br>15 Hp 200/208 V at AC 60 Hz for 3 phase<br>15 Hp 230/240 V at AC 60 Hz for 3 phase<br>40 Hp 460/480 V at AC 60 Hz for 3 phase<br>40 hp 575/600 V at AC 60 Hz for 3 phase                                                                                                                                                     |
| Compatibility code                          | LC1D                                                                                                                                                                                                                                                                                                                                                                                                           |
| Pole contact composition                    | 3 NO                                                                                                                                                                                                                                                                                                                                                                                                           |
| Protective cover                            | With                                                                                                                                                                                                                                                                                                                                                                                                           |
| [Ith] conventional free air thermal current | 80 A 140 °F (60 °C) power circuit<br>10 A 140 °F (60 °C) signalling circuit                                                                                                                                                                                                                                                                                                                                    |
| Irms rated making capacity                  | 900 A 440 V power circuit IEC 60947<br>140 A AC signalling circuit IEC 60947-5-1<br>250 A DC signalling circuit IEC 60947-5-1                                                                                                                                                                                                                                                                                  |
| Rated breaking capacity                     | 900 A 440 V power circuit IEC 60947                                                                                                                                                                                                                                                                                                                                                                            |
| [Icw] rated short-time withstand current    | 100 A - 1 s signalling circuit<br>120 A - 500 ms signalling circuit<br>140 A - 100 ms signalling circuit<br>84 A 104 °F (40 °C) - 10 min power circuit<br>208 A 104 °F (40 °C) - 1 min power circuit<br>400 A 104 °F (40 °C) - 10 s power circuit<br>810 A 104 °F (40 °C) - 1 s power circuit                                                                                                                  |

The information provided in this documentation contains general descriptions and/or technical characteristics of the products of the products contained herein. 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. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Associated fuse rating                 | 10 A gG signalling circuit IEC 60947-5-1<br>100 A gG ≤ 690 V type 1 power circuit<br>100 A gG ≤ 690 V type 2 power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Average impedance                      | 1.5 mOhm - lth 80 A 50 Hz power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Power dissipation per pole             | 9.6 W AC-1<br>3.7 W AC-3<br>3.7 W AC-3e                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| [Ui] rated insulation voltage          | Power circuit 690 V IEC 60947-4-1<br>Signalling circuit 690 V IEC 60947-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Overvoltage category                   | III                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Pollution degree                       | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| [Uimp] rated impulse withstand voltage | 6 kV IEC 60947                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Safety reliability level               | B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Mechanical durability                  | 6 Mcycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Electrical durability                  | 1.8 Mcycles 42 A AC-3 ≤ 440 V<br>0.5 Mcycles 80 A AC-1 ≤ 440 V<br>1.8 Mcycles 42 A AC-3e ≤ 440 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Control circuit type                   | DC DC low consumption                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Coil technology                        | Built-in bidirectional peak limiting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Control circuit voltage limits         | ≤ 0.1 Uc -40...158 °F (-40...70 °C) drop-out DC<br>0.8...1.2 Uc -40...140 °F (-40...60 °C) operational DC<br>1...1.2 Uc 140...158 °F (60...70 °C) operational DC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Inrush power in W                      | 11 W 68 °F (20 °C))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Hold-in power consumption in W         | 0.5 W 68 °F (20 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Heat dissipation                       | 0.5 W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Operating time                         | 55...65 ms closing<br>20...120 ms opening ≥ 17221)<br>20...80 ms opening ≥ 18011)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Maximum operating rate                 | 3600 cyc/h 140 °F (60 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Connections - terminals                | Control circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) flexible without cable end<br>Control circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) flexible without cable end<br>Control circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) flexible with cable end<br>Control circuit screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) flexible with cable end<br>Control circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) solid<br>Control circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) solid<br>Power circuit EverLink BTR screw connectors 1 0.00...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> ) flexible without cable end<br>Power circuit EverLink BTR screw connectors 1 0.00...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> ) flexible with cable end<br>Power circuit EverLink BTR screw connectors 1 0.00...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> ) solid<br>Power circuit EverLink BTR screw connectors 2 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> ) flexible without cable end<br>Power circuit EverLink BTR screw connectors 2 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> ) flexible with cable end<br>Power circuit EverLink BTR screw connectors 2 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> ) solid |
| Tightening torque                      | 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 70.81 lbf.in (8 N.m) EverLink BTR screw connectors 0.04...0.05 in <sup>2</sup> (25...35 mm <sup>2</sup> ) hexagonal 0.16 in (4 mm)<br>Power circuit 44.25 lbf.in (5 N.m) EverLink BTR screw connectors 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> ) hexagonal 0.16 in (4 mm)<br>Power circuit 44.25 lbf.in (5 N.m) pozidriv No 2<br>Control circuit 15.05 lbf.in (1.7 N.m) pozidriv No 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Auxiliary contact composition          | 1 NO + 1 NC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Auxiliary contacts type                | Mechanically linked 1 NO + 1 NC IEC 60947-5-1<br>Mirror contact 1 NC IEC 60947-4-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Signalling circuit frequency           | 25...400 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Minimum switching voltage              | 17 V signalling circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Minimum switching current              | 5 mA signalling circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Insulation resistance                  | > 10 MOhm 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                       | Plate<br>Rail                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

## Environment

|                                                       |                                                                                                                                                                                    |
|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standards                                             | 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                                                                                      |
| Product Certifications                                | CCC<br>CSA<br>EAC<br>UL<br>KC<br>DNV-GL<br>LROS (Lloyds register of shipping)<br>UKCA                                                                                              |
| IP degree of protection                               | IP20 front face IEC 60529                                                                                                                                                          |
| Climatic withstand                                    | IACS E10 exposure to damp heat<br>IEC 60947-1 Annex Q category D exposure to damp heat                                                                                             |
| Permissible ambient air temperature around the device | -40...140 °F (-40...60 °C)<br>140...158 °F (60...70 °C) with derating                                                                                                              |
| Operating altitude                                    | 0...9842.52 ft (0...3000 m)                                                                                                                                                        |
| Fire resistance                                       | 1562 °F (850 °C) 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 open 10 Gn for 11 ms)<br>Shocks contactor closed 15 Gn for 11 ms) |
| Height                                                | 4.80 in (122 mm)                                                                                                                                                                   |
| Width                                                 | 2.17 in (55 mm)                                                                                                                                                                    |
| Depth                                                 | 4.72 in (120 mm)                                                                                                                                                                   |
| Net Weight                                            | 2.20 lb(US) (0.997 kg)                                                                                                                                                             |

## Ordering and shipping details

|                   |                                             |
|-------------------|---------------------------------------------|
| Category          | 22356-CTR, TESYS D, OPEN, 9-65A AC/DC GREEN |
| Discount Schedule | I12                                         |
| GTIN              | 3606480987823                               |
| Returnability     | Yes                                         |
| Country of origin | FR                                          |

## Packing Units

|                              |                         |
|------------------------------|-------------------------|
| Unit Type of Package 1       | PCE                     |
| Number of Units in Package 1 | 1                       |
| Package 1 Height             | 2.48 in (6.300 cm)      |
| Package 1 Width              | 5.39 in (13.700 cm)     |
| Package 1 Length             | 5.98 in (15.200 cm)     |
| Package 1 Weight             | 2.33 lb(US) (1.059 kg)  |
| Unit Type of Package 2       | S02                     |
| Number of Units in Package 2 | 9                       |
| Package 2 Height             | 5.91 in (15.000 cm)     |
| Package 2 Width              | 11.81 in (30.000 cm)    |
| Package 2 Length             | 15.75 in (40.000 cm)    |
| Package 2 Weight             | 21.65 lb(US) (9.822 kg) |

## Offer Sustainability

|                          |                                                                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status | Green Premium product                                                                                                             |
| REACH Regulation         |  <a href="#">REACH Declaration</a>             |
| EU RoHS Directive        | Compliant  <a href="#">EU RoHS Declaration</a> |
| Mercury free             | Yes                                                                                                                               |
| China RoHS Regulation    |  <a href="#">China RoHS Declaration</a>        |

|                             |                                                                                                                                 |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| RoHS exemption information  |  Yes                                            |
| Environmental Disclosure    |  <a href="#">Product Environmental Profile</a> |
| Circularity Profile         |  <a href="#">End Of Life Information</a>       |
| WEEE                        | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.    |
| Halogen content performance | Halogen free plastic parts & cables product                                                                                     |

### Contractual warranty

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