

# LC1D50G6

IEC contactor, TeSys D, nonreversing, 50A, 40HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, 120VAC 60Hz coil, open



## Main

|                                |                                                                                                                                                                    |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                          | TeSys                                                                                                                                                              |
| Range of Product               | TeSys Deca                                                                                                                                                         |
| Product or Component Type      | Contactor                                                                                                                                                          |
| Device short name              | LC1D                                                                                                                                                               |
| Contactor application          | Motor control<br>Resistive load                                                                                                                                    |
| Utilisation category           | AC-3<br>AC-1<br>AC-4<br>AC-2<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 AC-1 power circuit<br>50 A 140 °F (60 °C)) <= 440 V AC AC-3 power circuit<br>50 A 140 °F (60 °C)) <= 440 V AC AC-3e power circuit |
| [Uc] control circuit voltage   | 120 V AC 60 Hz                                                                                                                                                     |

## Complementary

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Motor power kW                              | 22 KW 380...400 V AC 50/60 Hz<br>25 KW 415 V AC 50/60 Hz<br>30 KW 440 V AC 50/60 Hz<br>30 KW 500 V AC 50/60 Hz<br>33 KW 660...690 V AC 50/60 Hz<br>15 kW 220...230 V AC 50/60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Maximum Horse Power Rating                  | 3 Hp 115 V at AC 60 Hz for 1 phase conforming to CSA<br>3 Hp 115 V at AC 60 Hz for 1 phase conforming to UL<br>15 Hp 200/208 V at AC 60 Hz for 3 phase conforming to CSA<br>15 Hp 200/208 V at AC 60 Hz for 3 phase conforming to UL<br>15 Hp 230/240 V at AC 60 Hz for 3 phase conforming to CSA<br>15 Hp 230/240 V at AC 60 Hz for 3 phase conforming to UL<br>40 Hp 460/480 V at AC 60 Hz for 3 phase conforming to CSA<br>40 Hp 460/480 V at AC 60 Hz for 3 phase conforming to UL<br>40 Hp 575/600 V at AC 60 Hz for 3 phase conforming to CSA<br>40 Hp 575/600 V at AC 60 Hz for 3 phase conforming to UL<br>7.5 Hp 230/240 V at AC 60 Hz for 1 phase conforming to CSA<br>7.5 hp 230/240 V at AC 60 Hz for 1 phase conforming to UL |
| Compatibility code                          | LC1D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Pole contact composition                    | 3 NO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Protective cover                            | With                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| [Ith] conventional free air thermal current | 10 A 140 °F (60 °C) control circuit<br>80 A 140 °F (60 °C) power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Irms rated making capacity                  | 140 A AC control circuit IEC 60947-5-1<br>900 A 440 V power circuit IEC 60947                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Rated breaking capacity                     | 900 A 440 V power circuit IEC 60947                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Associated fuse rating                      | 10 A gG control 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 - Ith 80 A 50 Hz power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power dissipation per pole             | 3.7 W AC-3<br>9.6 W AC-1<br>3.7 W AC-3e                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| [Ui] rated insulation voltage          | Control circuit 600 V CSA<br>Control circuit 600 V UL<br>Power circuit 600 V CSA<br>Power circuit 600 V UL<br>Control circuit 690 V IEC 60947-1<br>Power circuit 690 V IEC 60947-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Overvoltage category                   | III                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| [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                  | 6000000 cycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Control circuit type                   | AC 60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Coil technology                        | Without built-in bidirectional peak limiting diode suppressor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Control circuit voltage limits         | 0.85...1.1 U <sub>c</sub> 140 °F (60 °C) operational AC 60 Hz<br>0.3...0.6 U <sub>c</sub> 140 °F (60 °C) drop-out AC 60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Inrush power in VA                     | 140 VA 0.75 68 °F (20 °C))<br>160 VA 0.75 68 °F (20 °C))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Hold-in power consumption in VA        | 13 VA 50 Hz 0.3 68 °F (20 °C))<br>15 VA 60 Hz 0.3 68 °F (20 °C))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Heat dissipation                       | 4...5 W 50/60 Hz control circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Operating time                         | 12...26 ms closing<br>4...19 ms opening                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Maximum operating rate                 | 3600 cyc/h 140 °F (60 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Connections - terminals                | Control circuit screw clamp terminal 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) solid without cable end<br>Control circuit screw clamp terminal 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) solid without cable end<br>Control circuit screw clamp terminal 1 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) flexible without cable end<br>Control circuit screw clamp terminal 2 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) flexible without cable end<br>Control circuit screw clamp terminal 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) flexible with cable end<br>Control circuit screw clamp terminal 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) flexible with cable end<br>Power circuit connector 1 0.00...0.05 in <sup>2</sup> (2.5...35 mm <sup>2</sup> ) solid with cable end<br>Power circuit connector 2 0.00...0.05 in <sup>2</sup> (2.5...35 mm <sup>2</sup> ) solid with cable end<br>Power circuit connector 1 0.00...0.05 in <sup>2</sup> (2.5...35 mm <sup>2</sup> ) flexible without cable end<br>Power circuit connector 2 0.00...0.04 in <sup>2</sup> (2.5...25 mm <sup>2</sup> ) flexible without cable end<br>Power circuit connector 1 0.00...0.05 in <sup>2</sup> (2.5...35 mm <sup>2</sup> ) flexible with cable end<br>Power circuit connector 2 0.00...0.05 in <sup>2</sup> (2.5...35 mm <sup>2</sup> ) flexible with cable end |
| Tightening torque                      | Control circuit 10.62 lbf.in (1.2 N.m) screw clamp terminal flat Ø 6 mm<br>Control circuit 10.62 lbf.in (1.2 N.m) screw clamp terminal Philips No 2<br>Power circuit 44.25 lbf.in (5 N.m) screw clamp terminal flat Ø 6 mm<br>Power circuit 44.25 lbf.in (5 N.m) screw clamp terminal flat Ø 8 mm<br>Control circuit 10.62 lbf.in (1.2 N.m) screw clamp terminal pozidriv No 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Auxiliary contact composition          | 1 NO + 1 NC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Auxiliary contacts type                | Mirror contact 1 NC IEC 60947-4-1<br>Mechanically linked 1 NO + 1 NC IEC 60947-5-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Minimum switching voltage              | 17 V control circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Minimum switching current              | 5 mA control circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Insulation resistance                  | > 10 MOhm control circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Non-overlap time                       | 1.5 Ms on de-energisation between NC and NO contacts<br>1.5 ms on energisation between NC and NO contacts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Mounting Support                       | Rail<br>Plate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

## Environment

|                                                       |                                                                                                                                                                                        |
|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standards                                             | EN 60947-4-1<br>UL 508<br>IEC 60947-4-1<br>CSA C22.2 No 14<br>EN 60947-5-1<br>IEC 60947-5-1                                                                                            |
| Product Certifications                                | CCC<br>RINA<br>DNV<br>BV<br>LROS (pending)<br>GOST<br>CSA<br>UL<br>GL<br>UKCA                                                                                                          |
| IP degree of protection                               | IP2X IEC 60529<br>IP2X VDE 0106                                                                                                                                                        |
| Climatic withstand                                    | IACS E10 exposure to damp heat                                                                                                                                                         |
| Permissible ambient air temperature around the device | 23...140 °F (-5...60 °C)<br>-40...158 °F (-40...70 °C) at Uc                                                                                                                           |
| Operating altitude                                    | 9842.52 ft (3000 m) without derating                                                                                                                                                   |
| Fire resistance                                       | 1562 °F (850 °C) IEC 60695-2-1                                                                                                                                                         |
| Flame retardance                                      | V1 conforming to UL 94                                                                                                                                                                 |
| Mechanical robustness                                 | Shocks contactor opened 10 Gn for 11 ms)<br>Shocks contactor closed 15 Gn for 11 ms)<br>Vibrations contactor opened 2 Gn, 5...300 Hz)<br>Vibrations contactor closed 4 Gn, 5...300 Hz) |
| Height                                                | 4.80 in (122 mm)                                                                                                                                                                       |
| Width                                                 | 2.17 in (55 mm)                                                                                                                                                                        |
| Depth                                                 | 4.69 in (119 mm)                                                                                                                                                                       |
| Net Weight                                            | 3.09 lb(US) (1.4 kg)                                                                                                                                                                   |

## Ordering and shipping details

|                   |                                     |
|-------------------|-------------------------------------|
| Category          | 22357-CTR, TESYS D, OPEN, 40-65A AC |
| Discount Schedule | I12                                 |
| GTIN              | 3389110421439                       |
| Returnability     | Yes                                 |
| Country of origin | CZ                                  |

## Packing Units

|                              |                        |
|------------------------------|------------------------|
| Unit Type of Package 1       | PCE                    |
| Number of Units in Package 1 | 1                      |
| Package 1 Height             | 3.78 in (9.6 cm)       |
| Package 1 Width              | 5.20 in (13.2 cm)      |
| Package 1 Length             | 5.51 in (14.0 cm)      |
| Package 1 Weight             | 3.19 lb(US) (1.448 kg) |
| Unit Type of Package 2       | S02                    |
| Number of Units in Package 2 | 5                      |
| 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             | 16.78 lb(US) (7.61 kg) |

## Offer Sustainability

|                            |                                                                                                                                                                                                                                                           |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                                                                                                                                                     |
| 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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |
| REACH Regulation           | <a href="#">REACH Declaration</a>                                                                                                                                                                                                                         |
| REACH free of SVHC         | Yes                                                                                                                                                                                                                                                       |
| EU RoHS Directive          | Compliant <a href="#">EU RoHS Declaration</a>                                                                                                                                                                                                             |
| Toxic heavy metal free     | Yes                                                                                                                                                                                                                                                       |
| Mercury free               | Yes                                                                                                                                                                                                                                                       |
| China RoHS Regulation      | <a href="#">China RoHS Declaration</a>                                                                                                                                                                                                                    |
| RoHS exemption information | <a href="#">Yes</a>                                                                                                                                                                                                                                       |
| 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.                                                                                                                              |
| PVC free                   | Yes                                                                                                                                                                                                                                                       |

## Contractual warranty

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