

# LC1D12G7

IEC contactor, TeSys Deca, nonreversing, 12A, 7.5HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, 120VAC 50/60Hz coil, open





## Main

|   |   |
|---|---|
| Range                                       | TeSys<br>TeSys Deca   |
| Product name                                | TeSys D<br>TeSys Deca   |
| Product or Component Type                   | Contacteur  |
| Device short name                           | LC1D  |
| Contacteur application                      | Motor control<br>Resistive load   |
| Utilisation category                        | AC-3<br>AC-4<br>AC-1<br>AC-3e   |
| Poles description                           | 3P  |
| Power pole contact composition              | 3 NO  |
| [Ue] rated operational voltage              | Power circuit <= 690 V AC 25...400 Hz<br>Power circuit <= 300 V DC  |
| [Ie] rated operational current              | 25 A 140 °F (60 °C)) <= 440 V AC AC-1 power circuit<br>12 A 140 °F (60 °C)) <= 440 V AC AC-3 power circuit<br>12 A 140 °F (60 °C)) <= 440 V AC AC-3e power circuit  |
| Motor power kW                              | 3 kW 220...230 V AC 50/60 Hz AC-3)<br>5.5 kW 380...400 V AC 50/60 Hz AC-3)<br>5.5 kW 415...440 V AC 50/60 Hz AC-3)<br>7.5 kW 500 V AC 50/60 Hz AC-3)<br>7.5 kW 660...690 V AC 50/60 Hz AC-3)<br>3.7 kW 400 V AC 50/60 Hz AC-4)<br>3 kW 220...230 V AC 50/60 Hz AC-3e)<br>5.5 kW 380...400 V AC 50/60 Hz AC-3e)<br>5.5 kW 415...440 V AC 50/60 Hz AC-3e)<br>7.5 kW 500 V AC 50/60 Hz AC-3e)<br>7.5 kW 660...690 V AC 50/60 Hz AC-3e) |
| Motor power HP (UL / CSA)                   | 0.5 Hp 115 V at AC 50/60 Hz for 1 phase<br>2 Hp 230/240 V at AC 50/60 Hz for 1 phase<br>3 Hp 200/208 V at AC 50/60 Hz for 3 phase<br>3 Hp 230/240 V at AC 50/60 Hz for 3 phase<br>7.5 Hp 460/480 V at AC 50/60 Hz for 3 phase<br>10 hp 575/600 V at AC 50/60 Hz for 3 phase   |
| Control circuit type                        | AC 50/60 Hz   |
| [Uc] control circuit voltage                | 120 V AC 50/60 Hz   |
| Auxiliary contact composition               | 1 NO + 1 NC   |
| [Uimp] rated impulse withstand voltage      | 6 kV IEC 60947  |
| Overvoltage category                        | III   |
| [Ith] conventional free air thermal current | 25 A 140 °F (60 °C) power circuit<br>10 A 140 °F (60 °C) signalling circuit   |
| Irms rated making capacity                  | 250 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                     | 250 A 440 V power circuit IEC 60947   |
| [Icw] rated short-time withstand current    | 105 A 104 °F (40 °C) - 10 s power circuit<br>210 A 104 °F (40 °C) - 1 s power circuit<br>30 A 104 °F (40 °C) - 10 min power circuit<br>61 A 104 °F (40 °C) - 1 min power circuit<br>100 A - 1 s signalling circuit<br>120 A - 500 ms signalling circuit<br>140 A - 100 ms signalling circuit  |
| Associated fuse rating                      | 10 A gG signalling circuit IEC 60947-5-1<br>40 A gG <= 690 V type 1 power circuit<br>25 A gG <= 690 V type 2 power circuit  |
| Average impedance                           | 2.5 mOhm - Ith 25 A 50 Hz power circuit   |

|                               |  |
|-------------------------------|--|
| [Ui] rated insulation voltage | Power circuit 690 V IEC 60947-4-1<br>Power circuit 600 V CSA<br>Power circuit 600 V UL<br>Signalling circuit 690 V IEC 60947-1<br>Signalling circuit 600 V CSA<br>Signalling circuit 600 V UL  |
| Electrical durability         | 2 Mcycles 12 A AC-3 <= 440 V<br>0.8 Mcycles 25 A AC-1 <= 440 V<br>2 Mcycles 12 A AC-3e <= 440 V  |
| Power dissipation per pole    | 0.36 W AC-3<br>1.56 W AC-1<br>0.36 W AC-3e   |
| Front cover                   | With   |
| Mounting Support              | Rail<br>Plate  |
| Standards                     | CSA C22.2 No 14<br>EN 60947-4-1<br>EN 60947-5-1<br>IEC 60947-4-1<br>IEC 60947-5-1<br>UL 508<br>IEC 60335-1   |
| Product Certifications        | DNV<br>GOST<br>GL<br>CSA<br>BV<br>LROS (Lloyds register of shipping)<br>UL<br>RINA<br>CCC<br>UKCA  |
| Connections - terminals       | Power circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible without cable end<br>Power circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible without cable end<br>Power circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible with cable end<br>Power 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>Power circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid without cable end<br>Power circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid 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 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 without cable end<br>Control circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid without cable end |
| Tightening torque             | Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm<br>Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2<br>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>Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2<br>Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2   |
| Operating time                | 12...22 ms closing<br>4...19 ms opening  |
| 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         | 15 Mcycles   |
| Maximum operating rate        | 3600 cyc/h 140 °F (60 °C)  |

## Complementary

|                                 |   |
|---------------------------------|---|
| Coil technology                 | Without built-in suppressor module  |
| Control circuit voltage limits  | 0.3...0.6 Uc -40...158 °F (-40...70 °C) drop-out AC 50/60 Hz<br>0.8...1.1 Uc -40...140 °F (-40...60 °C) operational AC 50 Hz<br>0.85...1.1 Uc -40...140 °F (-40...60 °C) operational AC 60 Hz<br>1...1.1 Uc 140...158 °F (60...70 °C) operational AC 50/60 Hz |
| Inrush power in VA              | 70 VA 60 Hz 0.75 68 °F (20 °C))<br>70 VA 50 Hz 0.75 68 °F (20 °C))  |
| Hold-in power consumption in VA | 7.5 VA 60 Hz 0.3 68 °F (20 °C))<br>7 VA 50 Hz 0.3 68 °F (20 °C))  |
| Heat dissipation                | 2...3 W 50/60 Hz  |
| 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 current       | 5 mA signalling circuit   |
| Minimum switching voltage       | 17 V 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   |
| Insulation resistance           | > 10 MOhm signalling circuit  |

## Environment

|                                       |  |
|---------------------------------------|--|
| IP degree of protection               | IP20 front face IEC 60529  |
| Climatic withstand                    | IACS E10<br>IEC 60947-1 Annex Q category D   |
| Protective treatment                  | TH IEC 60068-2-30  |
| Pollution degree                      | 3  |
| Ambient air temperature for operation | -40...140 °F (-40...60 °C)<br>140...158 °F (60...70 °C) with derating  |
| Ambient Air Temperature for Storage   | -76...176 °F (-60...80 °C)   |
| Operating altitude                    | 0...9842.52 ft (0...3000 m)  |
| Fire resistance                       | 1562 °F (850 °C) IEC 60695-2-1   |
| Mechanical robustness                 | Vibrations contactor open2 Gn, 5...300 Hz<br>Vibrations contactor closed4 Gn, 5...300 Hz<br>Shocks contactor open10 Gn for 11 ms<br>Shocks contactor closed15 Gn for 11 ms |
| Height                                | 3.03 in (77 mm)  |
| Width                                 | 1.77 in (45 mm)  |
| Depth                                 | 3.39 in (86 mm)  |
| Net Weight                            | 0.72 lb(US) (0.325 kg)   |

## Ordering and shipping details

|                       |                                    |
|-----------------------|------------------------------------|
| Category              | 22354-CTR, TESYS D, OPEN, 9-38A AC |
| Discount Schedule     | I12                                |
| GTIN                  | 3389110349245                      |
| Nbr. of units in pkg. | 1                                  |
| Package weight(Lbs)   | 12.91 oz (366.0 g)                 |
| Returnability         | Yes                                |
| Country of origin     | ID                                 |

## Packing Units

|                              |                         |
|------------------------------|-------------------------|
| Unit Type of Package 1       | PCE                     |
| Package 1 Height             | 2.17 in (5.5 cm)        |
| Package 1 width              | 3.74 in (9.5 cm)        |
| Package 1 Length             | 4.65 in (11.8 cm)       |
| Unit Type of Package 2       | S02                     |
| Number of Units in Package 2 | 16                      |
| Package 2 Weight             | 14.11 lb(US) (6.398 kg) |

|                  |                  |
|------------------|------------------|
| Package 2 Height | 5.91 in (15 cm)  |
| Package 2 width  | 11.81 in (30 cm) |
| Package 2 Length | 15.75 in (40 cm) |

### 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> |
| RECh Regulation            | <a href="#">RECh Declaration</a>  |
| RECh free of SVHC          | Yes   |
| EU RoHS Directive          | Compliant <a href="#">EU RoHS Declaration</a>   |
| Toxic heavy metal free     | Yes   |
| Mercury free               | Yes   |
| RoHS exemption information | <a href="#">Yes</a>   |
| China RoHS Regulation      | <a href="#">China RoHS Declaration</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 |
|----------|-----------|