

## LC1D12FE7

IEC contactor, TeSys Deca, nonreversing,  
12A, 7.5HP at 480VAC, up to 100kA SCCR, 3  
phase, 3 NO, 115VAC 50/60Hz coil, open





## Main

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                       | TeSys<br>TeSys Deca                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Product name                                | TeSys D<br>TeSys Deca                                                                                                                                                                                                                                                                                                                                                                                                               |
| Product or Component Type                   | Contactor                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Device short name                           | LC1D                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Contactor application                       | Motor control<br>Resistive load                                                                                                                                                                                                                                                                                                                                                                                                     |
| Utilisation category                        | AC-4<br>AC-1<br>AC-3<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                | 115 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              | Plate<br>Rail                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 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        | RINA<br>CSA<br>CCC<br>DNV<br>LROS (Lloyds register of shipping)<br>GL<br>UL<br>BV<br>GOST<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                  | 3389110349214                      |
| Nbr. of units in pkg. | 1                                  |
| Package weight(Lbs)   | 12.52 oz (355.0 g)                 |
| Returnability         | No                                 |
| Country of origin     | FR                                 |

## Packing Units

|                              |                         |
|------------------------------|-------------------------|
| Unit Type of Package 1       | PCE                     |
| Package 1 Height             | 2.17 in (5.5 cm)        |
| Package 1 width              | 3.15 in (8 cm)          |
| Package 1 Length             | 3.74 in (9.5 cm)        |
| Unit Type of Package 2       | S02                     |
| Number of Units in Package 2 | 20                      |
| Package 2 Weight             | 16.39 lb(US) (7.434 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)          |
| Unit Type of Package 3       | P06                       |
| Number of Units in Package 3 | 320                       |
| Package 3 Weight             | 285.23 lb(US) (129.38 kg) |
| Package 3 Height             | 30.31 in (77 cm)          |
| Package 3 width              | 23.62 in (60 cm)          |
| Package 3 Length             | 31.50 in (80 cm)          |

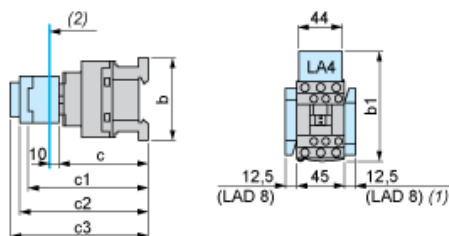
### Offer Sustainability

|                            |                                                                                                                                                                                                                                                           |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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> |
| 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                                                                                                                                                                                                                                                       |
| 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 |
|----------|-----------|

## Dimensions



- (1) Including LAD 4BB  
(2) Minimum electrical clearance

| LC1                                |                                   | D09...D18          | D093...D123          | D099...D129 |
|------------------------------------|-----------------------------------|--------------------|----------------------|-------------|
| b                                  | without add-on blocks             | 77                 | 99                   | 80          |
| b1                                 | with LAD 4BB                      | 94                 | 107                  | 95.5        |
| with LA4 D•2                       | 110 <sup>(1)</sup>                | 123 <sup>(1)</sup> | 111.5 <sup>(1)</sup> |             |
| with LA4 DF, DT                    | 119 <sup>(1)</sup>                | 132 <sup>(1)</sup> | 120.5 <sup>(1)</sup> |             |
| with LA4 DW, DL                    | 126 <sup>(1)</sup>                | 139 <sup>(1)</sup> | 127.5 <sup>(1)</sup> |             |
| c                                  | without cover or add-on blocks    | 84                 | 84                   | 84          |
| with cover, without add-on blocks  | 86                                | 86                 | 86                   |             |
| c1                                 | with LAD N or C (2 or 4 contacts) | 117                | 117                  | 117         |
| c2                                 | with LA6 DK10, LAD 6K10           | 129                | 129                  | 129         |
| c3                                 | with LAD T, R, S                  | 137                | 137                  | 137         |
| with LAD T, R, S and sealing cover | 141                               | 141                | 141                  |             |
| (1)                                | Including LAD 4BB.                |                    |                      |             |

## Wiring

