

# LC1D65AF7

IEC contactor, TeSys Deca, nonreversing, 65A, 40HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, 110VAC 50/60Hz coil, open





## Main

|   |   |
|---|---|
| Range                                       | TeSys<br>TeSys Deca   |
| Product name                                | TeSys D<br>TeSys Deca   |
| Product or Component Type                   | Contactors  |
| Device short name                           | LC1D  |
| Contactors application                      | Resistive load<br>Motor control   |
| 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              | 80 A 140 °F (60 °C)) <= 440 V AC AC-1 power circuit<br>65 A 140 °F (60 °C)) <= 440 V AC AC-3 power circuit<br>65 A 140 °F (60 °C)) <= 440 V AC AC-3e power circuit  |
| Motor power kW                              | 11 kW 400 V AC 50/60 Hz AC-4)<br>18.5 kW 220...230 V AC 50/60 Hz AC-3)<br>30 kW 380...400 V AC 50/60 Hz AC-3)<br>37 kW 500 V AC 50/60 Hz AC-3)<br>37 kW 660...690 V AC 50/60 Hz AC-3)<br>18.5 kW 220...230 V AC 50/60 Hz AC-3e)<br>30 kW 380...400 V AC 50/60 Hz AC-3e)<br>37 kW 500 V AC 50/60 Hz AC-3e)<br>37 kW 660...690 V AC 50/60 Hz AC-3e) |
| Motor power HP (UL / CSA)                   | 40 Hp 460/480 V at AC 50/60 Hz for 3 phase<br>5 Hp 115 V at AC 50/60 Hz for 1 phase<br>10 Hp 230/240 V at AC 50/60 Hz for 1 phase<br>20 Hp 200/208 V at AC 50/60 Hz for 3 phase<br>20 Hp 230/240 V at AC 50/60 Hz for 3 phase<br>50 hp 575/600 V at AC 50/60 Hz for 3 phase   |
| Control circuit type                        | AC 50/60 Hz   |
| [Uc] control circuit voltage                | 110 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 | 10 A 140 °F (60 °C) signalling circuit<br>80 A 140 °F (60 °C) power circuit   |
| Irms rated making capacity                  | 140 A AC signalling circuit IEC 60947-5-1<br>250 A DC signalling circuit IEC 60947-5-1<br>1000 A 440 V power circuit IEC 60947  |
| Rated breaking capacity                     | 1000 A 440 V power circuit IEC 60947  |
| [Icw] rated short-time withstand current    | 520 A 104 °F (40 °C) - 10 s power circuit<br>900 A 104 °F (40 °C) - 1 s power circuit<br>110 A 104 °F (40 °C) - 10 min power circuit<br>260 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>125 A gG <= 690 V type 1 power circuit<br>125 A gG <= 690 V type 2 power circuit  |
| Average impedance                           | 1.5 mOhm - Ith 80 A 50 Hz power circuit   |

|                               |  |
|-------------------------------|--|
| [Ui] rated insulation voltage | 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<br>Power circuit 690 V IEC 60947-4-1  |
| Electrical durability         | 1.4 Mcycles 80 A AC-1 <= 440 V<br>1.45 Mcycles 65 A AC-3 <= 440 V<br>1.45 Mcycles 65 A AC-3e <= 440 V  |
| Power dissipation per pole    | 9.6 W AC-1<br>6.3 W AC-3<br>6.3 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        | CSA<br>GOST<br>UL<br>CCC   |
| Connections - terminals       | Control circuit screw clamp terminals 2 0.00...0.01 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> )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 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<br>Power circuit screw connection 1 0.00...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> )flexible without cable end<br>Power circuit screw connection 2 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> )flexible without cable end<br>Power circuit screw connection 1 0.00...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> )flexible with cable end<br>Power circuit screw connection 2 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> )flexible with cable end<br>Power circuit screw connection 1 0.00...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> )solid without cable end<br>Power circuit screw connection 2 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> )solid without cable end |
| Tightening torque             | Control circuit 15.05 lbf.in (1.7 N.m) EverLink BTR screw connectors flat Ø 6 mm<br>Control circuit 15.05 lbf.in (1.7 N.m) EverLink BTR screw connectors Philips No 2<br>Power circuit 70.81 lbf.in (8 N.m) EverLink BTR screw connectors 0.04...0.05 in <sup>2</sup> (25...35 mm <sup>2</sup> ) hexagonal 0.16 in (4 mm)<br>Power circuit 44.25 lbf.in (5 N.m) EverLink BTR screw connectors 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> ) hexagonal 0.16 in (4 mm)<br>Control circuit 15.05 lbf.in (1.7 N.m) EverLink BTR screw connectors pozidriv No 2<br>Power circuit 22.13 lbf.in (2.5 N.m) EverLink BTR screw connectors pozidriv No 2<br>EverLink BTR screw connectors  |
| Operating time                | 4...19 ms opening<br>12...26 ms closing  |
| Safety reliability level      | B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1   |
| Mechanical durability         | 6 Mcycles  |
| 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              | 140 VA 60 Hz 0.75 68 °F (20 °C))<br>160 VA 50 Hz 0.75 68 °F (20 °C))  |
| Hold-in power consumption in VA | 13 VA 60 Hz 0.3 68 °F (20 °C))<br>15 VA 50 Hz 0.3 68 °F (20 °C))  |
| Heat dissipation                | 4...5 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 closed15 Gn for 11 ms<br>Shocks contactor open10 Gn for 11 ms |
| Height                                | 4.80 in (122 mm)   |
| Width                                 | 2.17 in (55 mm)  |
| Depth                                 | 4.72 in (120 mm)   |
| Net Weight                            | 1.90 lb(US) (0.86 kg)  |

## Ordering and shipping details

|                       |                                     |
|-----------------------|-------------------------------------|
| Category              | 22357-CTR, TESYS D, OPEN, 40-65A AC |
| Discount Schedule     | I12                                 |
| GTIN                  | 3389119408974                       |
| Nbr. of units in pkg. | 1                                   |
| Package weight(Lbs)   | 33.37 oz (946 g)                    |
| Returnability         | Yes                                 |
| Country of origin     | ID                                  |

## Packing Units

|                              |                         |
|------------------------------|-------------------------|
| Unit Type of Package 1       | PCE                     |
| Package 1 Height             | 2.44 in (6.2 cm)        |
| Package 1 width              | 5.39 in (13.7 cm)       |
| Package 1 Length             | 5.98 in (15.2 cm)       |
| Unit Type of Package 2       | S02                     |
| Number of Units in Package 2 | 10                      |
| Package 2 Weight             | 21.85 lb(US) (9.911 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 | 160                       |
| Package 3 Weight             | 368.48 lb(US) (167.14 kg) |
| Package 3 Height             | 30.31 in (77 cm)          |
| Package 3 width              | 31.50 in (80 cm)          |
| Package 3 Length             | 23.62 in (60 cm)          |

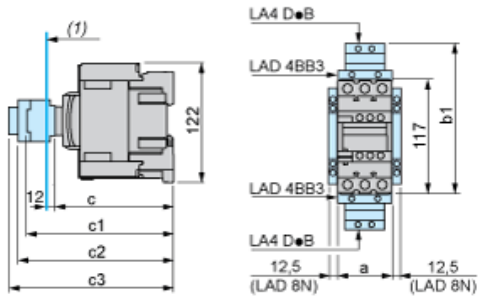
### Offer Sustainability

|                            |   |
|----------------------------|---|
| 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) Minimum electrical clearance

| LC1 |                                    | D40A...D65A |
|-----|------------------------------------|-------------|
| a   |                                    | 55          |
| b1  | with LA4 D•2                       | –           |
|     | with LA4 DB3 or LAD 4BB3           | 136         |
|     | with LA4 DF, DT                    | 157         |
|     | with LA4 DM, DW, DL                | 166         |
| c   | without cover or add-on blocks     | 118         |
|     | with cover, without add-on blocks  | 120         |
| c1  | with LAD N (1 contact)             | –           |
|     | with LAD N or C (2 or 4 contacts)  | 150         |
| c2  | with LA6 DK10, LAD 6DK             | 163         |
| c3  | with LAD T, R, S                   | 171         |
|     | with LAD T, R, S and sealing cover | 175         |

Wiring

