

# LC1D150E7

IEC contactor, TeSys Deca, nonreversing,  
150A, 100HP at 480VAC, up to 100kA SCCR,  
3 phase, 3 NO, 48VAC 50/60Hz coil, open





## Main

|                                             |                                                                                                                                                                                                                                                                                                  |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                       | TeSys                                                                                                                                                                                                                                                                                            |
| Product name                                | TeSys D<br>TeSys Deca                                                                                                                                                                                                                                                                            |
| Product or Component Type                   | Contacteur                                                                                                                                                                                                                                                                                       |
| Device short name                           | LC1D                                                                                                                                                                                                                                                                                             |
| Contacteur application                      | Resistive load<br>Motor control                                                                                                                                                                                                                                                                  |
| Utilisation category                        | AC-1<br>AC-4<br>AC-3                                                                                                                                                                                                                                                                             |
| Poles description                           | 3P                                                                                                                                                                                                                                                                                               |
| Power pole contact composition              | 3 NO                                                                                                                                                                                                                                                                                             |
| [Ue] rated operational voltage              | Power circuit $\leq 1000$ V AC 25...400 Hz<br>Power circuit $\leq 300$ V DC                                                                                                                                                                                                                      |
| [Ie] rated operational current              | 200 A 140 °F (60 °C) $\leq 440$ V AC AC-1 power circuit<br>150 A 140 °F (60 °C) $\leq 440$ V AC AC-3 power circuit                                                                                                                                                                               |
| Motor power kW                              | 40 KW 220...230 V AC 50/60 Hz AC-3)<br>75 KW 380...400 V AC 50/60 Hz AC-3)<br>80 KW 415...440 V AC 50/60 Hz AC-3)<br>90 KW 500 V AC 50/60 Hz AC-3)<br>100 KW 660...690 V AC 50/60 Hz AC-3)<br>75 KW 1000 V AC 50/60 Hz AC-3)<br>22 kW 400 V AC 50/60 Hz AC-4)                                    |
| Motor power HP (UL / CSA)                   | 40 Hp 200/208 V at AC 50/60 Hz for 3 phase<br>50 Hp 230/240 V at AC 50/60 Hz for 3 phase<br>100 Hp 460/480 V at AC 50/60 Hz for 3 phase<br>125 hp 575/600 V at AC 50/60 Hz for 3 phase                                                                                                           |
| Control circuit type                        | AC 50/60 Hz                                                                                                                                                                                                                                                                                      |
| [Uc] control circuit voltage                | 48 V AC 50/60 Hz                                                                                                                                                                                                                                                                                 |
| Auxiliary contact composition               | 1 NO + 1 NC                                                                                                                                                                                                                                                                                      |
| [Uimp] rated impulse withstand voltage      | 8 kV IEC 60947                                                                                                                                                                                                                                                                                   |
| Overvoltage category                        | III                                                                                                                                                                                                                                                                                              |
| [Ith] conventional free air thermal current | 200 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>1660 A 440 V power circuit IEC 60947                                                                                                                                                                   |
| Rated breaking capacity                     | 1400 A 440 V power circuit IEC 60947                                                                                                                                                                                                                                                             |
| [Icw] rated short-time withstand current    | 250 A 104 °F (40 °C) - 10 min power circuit<br>580 A 104 °F (40 °C) - 1 min power circuit<br>1200 A 104 °F (40 °C) - 10 s power circuit<br>1400 A 104 °F (40 °C) - 1 s 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>315 A gG $\leq 690$ V type 1 power circuit<br>250 A gG $\leq 690$ V type 2 power circuit                                                                                                                                                             |
| Average impedance                           | 0.6 mOhm - Ith 200 A 50 Hz power circuit                                                                                                                                                                                                                                                         |
| [Ui] rated insulation voltage               | Power circuit 600 V CSA<br>Power circuit 600 V UL<br>Power circuit 1000 V IEC 60947-4-1<br>Signalling circuit 690 V IEC 60947-1<br>Signalling circuit 600 V CSA<br>Signalling circuit 600 V UL                                                                                                   |
| Electrical durability                       | 0.85 Mcycles 150 A AC-3 $\leq 440$ V<br>1 Mcycles 200 A AC-1 $\leq 440$ V                                                                                                                                                                                                                        |

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|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power dissipation per pole | 24 W AC-1<br>13.5 W AC-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Product Certifications     | CCC<br>BV<br>DNV<br>CSA<br>LROS (Lloyds register of shipping)<br>GOST<br>RINA<br>GL<br>UL<br>UKCA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Connections - terminals    | Control circuit screw clamp terminals 2 0.00...<br>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...<br>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...<br>0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> )flexible without cable end<br>Control circuit screw clamp terminals 2 0.00...<br>0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> )flexible without cable end<br>Control circuit screw clamp terminals 1 0.00...<br>0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> )solid without cable end<br>Control circuit screw clamp terminals 2 0.00...<br>0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> )solid without cable end<br>Power circuit connector 1 0.02...0.19 in <sup>2</sup> (10...<br>120 mm <sup>2</sup> )flexible without cable end<br>Power circuit connector 2 0.02...0.08 in <sup>2</sup> (10...<br>50 mm <sup>2</sup> )flexible without cable end<br>Power circuit connector 1 0.02...0.19 in <sup>2</sup> (10...<br>120 mm <sup>2</sup> )flexible with cable end<br>Power circuit connector 2 0.02...0.08 in <sup>2</sup> (10...<br>50 mm <sup>2</sup> )flexible with cable end<br>Power circuit connector 1 0.02...0.19 in <sup>2</sup> (10...<br>120 mm <sup>2</sup> )solid without cable end<br>Power circuit connector 2 0.02...0.08 in <sup>2</sup> (10...<br>50 mm <sup>2</sup> )solid without cable end |
| Tightening torque          | Control circuit 10.62 lbf.in (1.2 N.m) screw clamp<br>terminals flat Ø 6 mm<br>Control circuit 10.62 lbf.in (1.2 N.m) screw clamp<br>terminals Philips No 2<br>Power circuit 106.21 lbf.in (12 N.m) connector<br>hexagonal 0.16 in (4 mm)<br>Control circuit 10.62 lbf.in (1.2 N.m) screw clamp<br>terminals pozidriv No 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Operating time             | 20...35 ms closing<br>40...75 ms opening                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Safety reliability level   | B10d = 1369863 cycles contactor with nominal load<br>EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical<br>load EN/ISO 13849-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Mechanical durability      | 8 Mcycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Maximum operating rate     | 1200 cyc/h 140 °F (60 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

## Complementary

|                                 |                                                                                                                                                                                                   |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Coil technology                 | Built-in bidirectional peak limiting diode suppressor                                                                                                                                             |
| Control circuit voltage limits  | 0.3...0.5 Uc -40...158 °F (-40...70 °C) drop-out AC 50/60 Hz<br>0.8...1.15 Uc -40...131 °F (-40...55 °C) operational AC 50/60 Hz<br>1...1.15 Uc 131...158 °F (55...70 °C) operational AC 50/60 Hz |
| Inrush power in VA              | 280...350 VA 60 Hz 0.9 68 °F (20 °C))<br>280...350 VA 50 Hz 0.9 68 °F (20 °C))                                                                                                                    |
| Hold-in power consumption in VA | 2...18 VA 60 Hz 0.9 68 °F (20 °C))<br>2...18 VA 50 Hz 0.9 68 °F (20 °C))                                                                                                                          |
| Heat dissipation                | 3...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                                                                                                                                                                  |
| 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 open6 Gn for 11 ms |
| Height                                | 6.22 in (158 mm)                                                                                                                                                          |
| Width                                 | 4.72 in (120 mm)                                                                                                                                                          |
| Depth                                 | 5.35 in (136 mm)                                                                                                                                                          |
| Net Weight                            | 5.51 lb(US) (2.5 kg)                                                                                                                                                      |

## Ordering and shipping details

|                       |                                         |
|-----------------------|-----------------------------------------|
| Category              | 22359-CTR, TESYS D, OPEN, 80-150A AC&DC |
| Discount Schedule     | I12                                     |
| GTIN                  | 3389110526806                           |
| Nbr. of units in pkg. | 1                                       |
| Package weight(Lbs)   | 5.47 lb(US) (2.482 kg)                  |
| Returnability         | No                                      |
| Country of origin     | CZ                                      |

## Packing Units

|                              |                          |
|------------------------------|--------------------------|
| Unit Type of Package 1       | PCE                      |
| Package 1 Height             | 7.48 in (19.0 cm)        |
| Package 1 width              | 6.89 in (17.5 cm)        |
| Package 1 Length             | 8.27 in (21.0 cm)        |
| Unit Type of Package 2       | P06                      |
| Number of Units in Package 2 | 16                       |
| Package 2 Weight             | 114.82 lb(US) (52.08 kg) |
| Package 2 Height             | 29.53 in (75.0 cm)       |
| Package 2 width              | 23.62 in (60.0 cm)       |
| Package 2 Length             | 31.50 in (80.0 cm)       |
| Package 3 Height             | 11.81 in (30 cm)         |

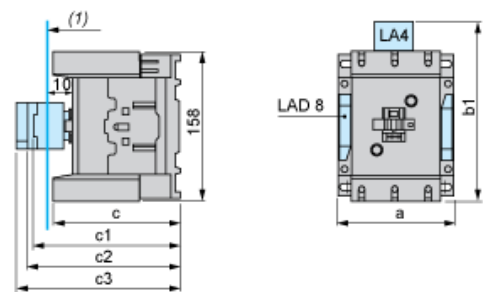
## Offer Sustainability

|                            |                                                                                                                                                                                                                                                           |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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>                                                                                                                                                                                                                         |
| EU RoHS Directive          | Compliant <a href="#">EU RoHS Declaration</a>                                                                                                                                                                                                             |
| 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                                |                                   | D115 and D150 (3-pole) |
|------------------------------------|-----------------------------------|------------------------|
| a                                  |                                   | 120                    |
| b1                                 | with LA4 DA2                      | 174                    |
| with LA4 DF, DT                    | 185                               |                        |
| with LA4 DM, DL                    | 188                               |                        |
| with LA4 DW                        | 188                               |                        |
| c                                  | without cover or add-on blocks    | 132                    |
| with cover, without add-on blocks  | 136                               |                        |
| c1                                 | with LAD N or C (2 or 4 contacts) | 150                    |
| c2                                 | with LA6 DK20                     | 155                    |
| c3                                 | with LAD T, R, S                  | 168                    |
| with LAD T, R, S and sealing cover | 172                               |                        |

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Wiring

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