

# LC1D25P7

IEC contactor, TeSys Deca, nonreversing, 25A, 15HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, 230VAC 50/60Hz coil, open



## Main

|                                |                                                                                                                                                                                                        |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range of Product               | TeSys Deca                                                                                                                                                                                             |
| Product or Component Type      | Contactor                                                                                                                                                                                              |
| Device short name              | LC1D                                                                                                                                                                                                   |
| Contactor application          | Resistive load<br>Motor control                                                                                                                                                                        |
| Utilisation category           | AC-3<br>AC-4<br>AC-1<br>AC-3e                                                                                                                                                                          |
| Poles description              | 3P                                                                                                                                                                                                     |
| [Ue] rated operational voltage | Power circuit <= 690 V AC 25...400 Hz<br>Power circuit <= 300 V DC                                                                                                                                     |
| [Ie] rated operational current | 25 A (at <140 °F (60 °C)) at <= 440 V AC AC-3 for power circuit<br>40 A (at <140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit<br>25 A (at <140 °F (60 °C)) at <= 440 V AC AC-3e for power circuit |
| [Uc] control circuit voltage   | 230 V AC 50/60 Hz                                                                                                                                                                                      |

## Complementary

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Motor power kW                              | 5.5 KW at 220...230 V AC 50/60 Hz (AC-3)<br>11 KW at 380...400 V AC 50/60 Hz (AC-3)<br>11 KW at 415...440 V AC 50/60 Hz (AC-3)<br>15 KW at 500 V AC 50/60 Hz (AC-3)<br>15 KW at 660...690 V AC 50/60 Hz (AC-3)<br>5.5 KW at 400 V AC 50/60 Hz (AC-4)<br>5.5 KW at 220...230 V AC 50/60 Hz (AC-3e)<br>11 KW at 380...400 V AC 50/60 Hz (AC-3e)<br>11 KW at 415...440 V AC 50/60 Hz (AC-3e)<br>15 KW at 500 V AC 50/60 Hz (AC-3e)<br>15 kW at 660...690 V AC 50/60 Hz (AC-3e) |
| Maximum Horse Power Rating                  | 3 Hp at 230/240 V AC 50/60 Hz for 1 phase motors<br>2 Hp at 115 V AC 50/60 Hz for 1 phase motors<br>7.5 Hp at 230/240 V AC 50/60 Hz for 3 phase motors<br>15 Hp at 460/480 V AC 50/60 Hz for 3 phase motors<br>20 Hp at 575/600 V AC 50/60 Hz for 3 phase motors<br>7.5 hp at 200/208 V AC 50/60 Hz for 3 phase motors                                                                                                                                                      |
| Compatibility code                          | LC1D                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Pole contact composition                    | 3 NO                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Protective cover                            | With                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| [Ith] conventional free air thermal current | 10 A (at 140 °F (60 °C)) for signalling circuit<br>40 A (at 140 °F (60 °C)) for power circuit                                                                                                                                                                                                                                                                                                                                                                               |
| Irms rated making capacity                  | 140 A AC for signalling circuit conforming to IEC 60947-5-1<br>250 A DC for signalling circuit conforming to IEC 60947-5-1<br>450 A at 440 V for power circuit conforming to IEC 60947                                                                                                                                                                                                                                                                                      |
| Rated breaking capacity                     | 450 A at 440 V for power circuit conforming to IEC 60947                                                                                                                                                                                                                                                                                                                                                                                                                    |

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|-------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [I <sub>cw</sub> ] rated short-time withstand current | 240 A 104 °F (40 °C) - 10 s for power circuit<br>380 A 104 °F (40 °C) - 1 s for power circuit<br>50 A 104 °F (40 °C) - 10 min for power circuit<br>120 A 104 °F (40 °C) - 1 min for power circuit<br>100 A - 1 s for signalling circuit<br>120 A - 500 ms for signalling circuit<br>140 A - 100 ms for signalling circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Associated fuse rating                                | 10 A gG for signalling circuit conforming to IEC 60947-5-1<br>63 A gG at ≤ 690 V coordination type 1 for power circuit<br>40 A gG at ≤ 690 V coordination type 2 for power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Average impedance                                     | 2 mOhm - I <sub>th</sub> 40 A 50 Hz for power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Power dissipation per pole                            | 3.2 W AC-1<br>1.25 W AC-3<br>1.25 W AC-3e                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| [U <sub>i</sub> ] 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Overvoltage category                                  | III                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Pollution degree                                      | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| [U <sub>imp</sub> ] rated impulse withstand voltage   | 6 kV IEC 60947                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Safety reliability level                              | B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Mechanical durability                                 | 15 Mcycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Electrical durability                                 | 1.65 Mcycles 25 A AC-3 ≤ 440 V<br>1.4 Mcycles 40 A AC-1 ≤ 440 V<br>1.65 Mcycles 25 A AC-3e ≤ 440 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Control circuit type                                  | AC 50/60 Hz standard                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Coil technology                                       | Without built-in suppressor module                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Control circuit voltage limits                        | 0.3...0.6 U <sub>c</sub> -40...158 °F (-40...70 °C) drop-out AC 50/60 Hz<br>0.8...1.1 U <sub>c</sub> -40...140 °F (-40...60 °C) operational AC 50 Hz<br>0.85...1.1 U <sub>c</sub> -40...140 °F (-40...60 °C) operational AC 60 Hz<br>1...1.1 U <sub>c</sub> 140...158 °F (60...70 °C) operational AC 50/60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Inrush power in VA                                    | 70 VA 60 Hz cos phi 0.75 (at 68 °F (20 °C))<br>70 VA 50 Hz cos phi 0.75 (at 68 °F (20 °C))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Hold-in power consumption in VA                       | 7.5 VA 60 Hz cos phi 0.3 (at 68 °F (20 °C))<br>7 VA 50 Hz cos phi 0.3 (at 68 °F (20 °C))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Heat dissipation                                      | 2...3 W at 50/60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Operating time                                        | 12...22 ms closing<br>4...19 ms opening                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Maximum operating rate                                | 3600 cyc/h 140 °F (60 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Connections - terminals                               | Control circuit: screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: 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> ) - cable stiffness: 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> ) - cable stiffness: 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> ) - cable stiffness: 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> ) - cable stiffness: 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> ) - cable stiffness: solid without cable end<br>Power circuit: screw clamp terminals 1 0.00...0.02 in <sup>2</sup> (2.5...10 mm <sup>2</sup> ) - cable stiffness: flexible without cable end<br>Power circuit: screw clamp terminals 2 0.00...0.02 in <sup>2</sup> (2.5...10 mm <sup>2</sup> ) - cable stiffness: flexible without cable end<br>Power circuit: screw clamp terminals 1 0.00...0.02 in <sup>2</sup> (1...10 mm <sup>2</sup> ) - cable stiffness: flexible with cable end<br>Power circuit: screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1.5...6 mm <sup>2</sup> ) - cable stiffness: flexible with cable end<br>Power circuit: screw clamp terminals 1 0.00...0.02 in <sup>2</sup> (1.5...10 mm <sup>2</sup> ) - cable stiffness: solid without cable end<br>Power circuit: screw clamp terminals 2 0.00...0.02 in <sup>2</sup> (2.5...10 mm <sup>2</sup> ) - cable stiffness: solid without cable end |

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| Tightening torque             | 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>Power circuit 22.13 lbf.in (2.5 N.m) screw clamp terminals flat Ø 6 mm<br>Power circuit 22.13 lbf.in (2.5 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 22.13 lbf.in (2.5 N.m) screw clamp terminals pozidriv No 2 |
| Auxiliary contact composition | 1 NO + 1 NC                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 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 voltage     | 17 V for signalling circuit                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Minimum switching current     | 5 mA for signalling circuit                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Insulation resistance         | > 10 MOhm for 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                                                                                                                                                                                                                                                                                                                                                              |
| Mounting Support              | Rail<br>Plate                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

## Environment

|                                                       |                                                                                                                                                                                   |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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                                | GL[RETURN]BV[RETURN]DNV[RETURN]LROS (Lloyds register of shipping)<br>[RETURN]RINA[RETURN]UL[RETURN]CCC[RETURN]CSA[RETURN]GOST[RETURN]UKCA                                         |
| IP degree of protection                               | IP20 front face IEC 60529                                                                                                                                                         |
| Protective treatment                                  | THIEC 60068-2-30                                                                                                                                                                  |
| Climatic withstand                                    | IACS E10 exposure to damp heat<br>IEC 60947-1 Annex Q category D exposure to damp heat                                                                                            |
| Permissible ambient air temperature around the device | -40...140 °F (-40...60 °C)<br>140...158 °F (60...70 °C) with derating                                                                                                             |
| Operating altitude                                    | 0...9842.52 ft (0...3000 m)                                                                                                                                                       |
| Fire resistance                                       | 1562 °F (850 °C) IEC 60695-2-1                                                                                                                                                    |
| Flame retardance                                      | V1 conforming to UL 94                                                                                                                                                            |
| Mechanical robustness                                 | Vibrations contactor open 2 Gn, 5...300 Hz)<br>Vibrations contactor closed 4 Gn, 5...300 Hz)<br>Shocks contactor closed 15 Gn for 11 ms)<br>Shocks contactor open 8 Gn for 11 ms) |
| Height                                                | 3.35 in (85 mm)                                                                                                                                                                   |
| Width                                                 | 1.77 in (45 mm)                                                                                                                                                                   |
| Depth                                                 | 3.62 in (92 mm)                                                                                                                                                                   |
| Net Weight                                            | 0.82 lb(US) (0.37 kg)                                                                                                                                                             |

## Ordering and shipping details

|                   |               |
|-------------------|---------------|
| Category          | US10I1222354  |
| Discount Schedule | 0I12          |
| GTIN              | 3389110349955 |
| Returnability     | Yes           |
| Country of origin | MX            |

## Packing Units

|                              |                      |
|------------------------------|----------------------|
| Unit Type of Package 1       | PCE                  |
| Number of Units in Package 1 | 1                    |
| Package 1 Height             | 1.97 in (5.000 cm)   |
| Package 1 Width              | 3.54 in (9.000 cm)   |
| Package 1 Length             | 4.33 in (11.000 cm)  |
| Package 1 Weight             | 14.71 oz (417.000 g) |
| Unit Type of Package 2       | S02                  |

|                              |                            |
|------------------------------|----------------------------|
| Number of Units in Package 2 | 20                         |
| Package 2 Height             | 5.91 in (15.000 cm)        |
| Package 2 Width              | 11.81 in (30.000 cm)       |
| Package 2 Length             | 15.75 in (40.000 cm)       |
| Package 2 Weight             | 18.81 lb(US) (8.531 kg)    |
| Unit Type of Package 3       | P06                        |
| Number of Units in Package 3 | 320                        |
| Package 3 Height             | 29.53 in (75.000 cm)       |
| Package 3 Width              | 23.62 in (60.000 cm)       |
| Package 3 Length             | 31.50 in (80.000 cm)       |
| Package 3 Weight             | 320.75 lb(US) (145.488 kg) |

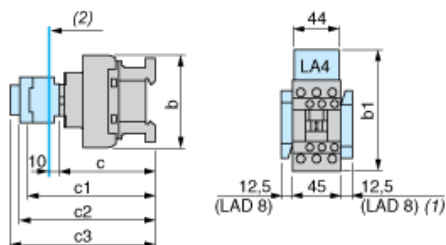
## Offer Sustainability

|                           |                                                                                                                                                                                                                                                           |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status  | Green Premium product                                                                                                                                                                                                                                     |
| California proposition 65 | WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |
| REACH Regulation          | <a href="#">REACH Declaration</a>                                                                                                                                                                                                                         |
| REACH free of SVHC        | Yes                                                                                                                                                                                                                                                       |
| EU RoHS Directive         | Compliant <a href="#">EU RoHS Declaration</a>                                                                                                                                                                                                             |
| 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                                |                                   | D25...D38 (3-pole) |
|------------------------------------|-----------------------------------|--------------------|
| b                                  | without add-on blocks             | 85                 |
| b1                                 | with LAD 4BB                      | 98                 |
| with LA4 D•2                       | 114 <sup>(1)</sup>                |                    |
| with LA4 DF, DT                    | 123 <sup>(1)</sup>                |                    |
| with LA4 DW, DL                    | 130 <sup>(1)</sup>                |                    |
| c                                  | without cover or add-on blocks    | 90                 |
| with cover, without add-on blocks  | 92                                |                    |
| c1                                 | with LAD N or C (2 or 4 contacts) | 123                |
| c2                                 | with LA6 DK10, LAD 6K10           | 135                |
| c3                                 | with LAD T, R, S                  | 143                |
| with LAD T, R, S and sealing cover | 147                               |                    |
| (1)                                | Including LAD 4BB.                |                    |

