

# Product data sheet

Specifications



IEC contactor, TeSys Deca, nonreversing, 12A, 7.5HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, 230VAC 50/60Hz coil, open

LC1D12P7

**Product availability : Stock - Normally stocked in distribution facility**

**Price\* : 142.80 USD**

## Main

|                                |   |
|--------------------------------|---|
| Range of Product               | TeSys Deca  |
| Product or Component Type      | Contactors  |
| Device short name              | LC1D  |
| Contactors application         | Resistive load<br>Motor control   |
| Utilisation category           | AC-3<br>AC-1<br>AC-4<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 140 °F (60 °C) <= 440 V AC AC-1 power circuit<br>12 A 140 °F (60 °C) <= 440 V AC AC-3 power circuit<br>12 A 140 °F (60 °C) <= 440 V AC AC-3e power circuit |
| [Uc] control circuit voltage   | 230 V AC 50/60 Hz   |

## Complementary

|                            |   |
|----------------------------|---|
| Motor power kW             | 3 kW 220...230 V AC 50/60 Hz AC-3)<br>5.5 kW 380...400 V AC 50/60 Hz AC-3)<br>5.5 kW 415...440 V AC 50/60 Hz AC-3)<br>7.5 kW 500 V AC 50/60 Hz AC-3)<br>7.5 kW 660...690 V AC 50/60 Hz AC-3)<br>3.7 kW 400 V AC 50/60 Hz AC-4)<br>3 kW 220...230 V AC 50/60 Hz AC-3e)<br>5.5 kW 380...400 V AC 50/60 Hz AC-3e)<br>5.5 kW 415...440 V AC 50/60 Hz AC-3e)<br>7.5 kW 500 V AC 50/60 Hz AC-3e)<br>7.5 kW 660...690 V AC 50/60 Hz AC-3e) |
| Maximum Horse Power Rating | 0.5 hp 115 V at AC 50/60 Hz for 1 phase<br>2 hp 230/240 V at AC 50/60 Hz for 1 phase<br>3 hp 200/208 V at AC 50/60 Hz for 3 phase<br>3 hp 230/240 V at AC 50/60 Hz for 3 phase<br>7.5 hp 460/480 V at AC 50/60 Hz for 3 phase<br>10 hp 575/600 V at AC 50/60 Hz for 3 phase   |
| Compatibility code         | LC1D  |
| Pole contact composition   | 3 NO  |
| Contact compatibility      | M2  |

\* Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

|  |  |
|--|--|
| <b>Protective cover</b>                            | With   |
| <b>[Ith] conventional free air thermal current</b> | 25 A 140 °F (60 °C) power circuit<br>10 A 140 °F (60 °C) signalling circuit  |
| <b>Irms rated making capacity</b>                  | 250 A 440 V power circuit IEC 60947<br>140 A AC signalling circuit IEC 60947-5-1<br>250 A DC signalling circuit IEC 60947-5-1  |
| <b>Rated breaking capacity</b>                     | 250 A 440 V power circuit IEC 60947  |
| <b>[Icw] rated short-time withstand current</b>    | 105 A 104 °F (40 °C) - 10 s power circuit<br>210 A 104 °F (40 °C) - 1 s power circuit<br>30 A 104 °F (40 °C) - 10 min power circuit<br>61 A 104 °F (40 °C) - 1 min power circuit<br>100 A - 1 s signalling circuit<br>120 A - 500 ms signalling circuit<br>140 A - 100 ms signalling circuit   |
| <b>Associated fuse rating</b>                      | 10 A gG signalling circuit IEC 60947-5-1<br>40 A gG ≤ 690 V type 1 power circuit<br>25 A gG ≤ 690 V type 2 power circuit   |
| <b>Average impedance</b>                           | 2.5 mOhm - Ith 25 A 50 Hz power circuit  |
| <b>Power dissipation per pole</b>                  | 0.36 W AC-3<br>1.56 W AC-1<br>0.36 W AC-3e   |
| <b>[Ui] rated insulation voltage</b>               | 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  |
| <b>Overvoltage category</b>                        | III  |
| <b>Pollution degree</b>                            | 3  |
| <b>[Uimp] rated impulse withstand voltage</b>      | 6 kV IEC 60947   |
| <b>Safety reliability level</b>                    | B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1   |
| <b>Mechanical durability</b>                       | 15 Mcycles   |
| <b>Electrical durability</b>                       | 2 Mcycles 12 A AC-3 ≤ 440 V<br>0.8 Mcycles 25 A AC-1 ≤ 440 V<br>2 Mcycles 12 A AC-3e ≤ 440 V   |
| <b>Control circuit type</b>                        | AC 50/60 Hz standard   |
| <b>Coil technology</b>                             | Without built-in suppressor module   |
| <b>Control circuit voltage limits</b>              | 0.3...0.6 Uc -40...158 °F (-40...70 °C) drop-out AC 50/60 Hz<br>0.8...1.1 Uc -40...140 °F (-40...60 °C) operational AC 50 Hz<br>0.85...1.1 Uc -40...140 °F (-40...60 °C) operational AC 60 Hz<br>1...1.1 Uc 140...158 °F (60...70 °C) operational AC 50/60 Hz  |
| <b>Inrush power in VA</b>                          | 70 VA 60 Hz 0.75 68 °F (20 °C))<br>70 VA 50 Hz 0.75 68 °F (20 °C))   |
| <b>Hold-in power consumption in VA</b>             | 7.5 VA 60 Hz 0.3 68 °F (20 °C))<br>7 VA 50 Hz 0.3 68 °F (20 °C))   |
| <b>Heat dissipation</b>                            | 2...3 W 50/60 Hz   |
| <b>Operating time</b>                              | 12...22 ms closing<br>4...19 ms opening  |
| <b>Maximum operating rate</b>                      | 3600 cyc/h 140 °F (60 °C)  |
| <b>Connections - terminals</b>                     | Power circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) flexible without cable end<br>Power circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) flexible without cable end<br>Power circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) flexible with cable end<br>Power circuit screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) flexible with cable end<br>Power circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) solid without cable end<br>Power circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) solid without cable end<br>Control circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) flexible without cable end<br>Control circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) flexible without cable end<br>Control circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) flexible with cable end<br>Control circuit screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) flexible with cable end<br>Control circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) solid without cable end<br>Control circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) solid without cable end |
| <b>Tightening torque</b>                           | Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm<br>Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2  |

Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm  
 Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2  
 Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2  
 Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2

|                                      |   |
|--------------------------------------|---|
| <b>Auxiliary contact composition</b> | 1 NO + 1 NC   |
| <b>Auxiliary contacts type</b>       | Mechanically linked 1 NO + 1 NC IEC 60947-5-1<br>Mirror contact 1 NC IEC 60947-4-1                      |
| <b>Signalling circuit frequency</b>  | 25...400 Hz   |
| <b>Minimum switching voltage</b>     | 17 V signalling circuit   |
| <b>Minimum switching current</b>     | 5 mA signalling circuit   |
| <b>Insulation resistance</b>         | > 10 MOhm signalling circuit  |
| <b>Non-overlap time</b>              | 1.5 ms on de-energisation between NC and NO contact<br>1.5 ms on energisation between NC and NO contact |
| <b>Mounting Support</b>              | Rail<br>Plate   |

## Environment

|  |  |
|--|--|
| <b>Standards</b>   | 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   |
| <b>Product Certifications</b>                                | CSA<br>GOST<br>BV<br>RINA<br>DNV<br>LROS (Lloyds register of shipping)<br>GL<br>CCC<br>UL<br>UKCA  |
| <b>IP degree of protection</b>                               | IP20 front face IEC 60529  |
| <b>Protective treatment</b>                                  | THIEC 60068-2-30   |
| <b>Climatic withstand</b>                                    | IACS E10 exposure to damp heat<br>IEC 60947-1 Annex Q category D exposure to damp heat   |
| <b>Permissible ambient air temperature around the device</b> | -40...140 °F (-40...60 °C)<br>140...158 °F (60...70 °C) with derating  |
| <b>Operating altitude</b>                                    | 0...9842.52 ft (0...3000 m)  |
| <b>Fire resistance</b>                                       | 1562 °F (850 °C) IEC 60695-2-1   |
| <b>Flame retardance</b>                                      | V1 conforming to UL 94   |
| <b>Mechanical robustness</b>                                 | Vibrations contactor open 2 Gn, 5...300 Hz)<br>Vibrations contactor closed 4 Gn, 5...300 Hz)<br>Shocks contactor open 10 Gn for 11 ms)<br>Shocks contactor closed 15 Gn for 11 ms) |
| <b>Height</b>  | 3.03 in (77 mm)  |
| <b>Width</b>   | 1.77 in (45 mm)  |
| <b>Depth</b>   | 3.39 in (86 mm)  |
| <b>Net Weight</b>  | 0.72 lb(US) (0.325 kg)   |

## Ordering and shipping details

|                          |                                    |
|--------------------------|------------------------------------|
| <b>Category</b>          | 22354-CTR, TESYS D, OPEN, 9-38A AC |
| <b>Discount Schedule</b> | I12                                |
| <b>GTIN</b>              | 3389110349306                      |
| <b>Returnability</b>     | Yes                                |
| <b>Country of origin</b> | ID                                 |

## Packing Units

|                              |                         |
|------------------------------|-------------------------|
| Unit Type of Package 1       | PCE                     |
| Number of Units in Package 1 | 1                       |
| Package 1 Height             | 1.97 in (5.0 cm)        |
| Package 1 Width              | 3.62 in (9.2 cm)        |
| Package 1 Length             | 4.41 in (11.2 cm)       |
| Package 1 Weight             | 12.42 oz (352.0 g)      |
| Unit Type of Package 2       | S02                     |
| Number of Units in Package 2 | 20                      |
| Package 2 Height             | 5.91 in (15.0 cm)       |
| Package 2 Width              | 11.81 in (30.0 cm)      |
| Package 2 Length             | 15.75 in (40.0 cm)      |
| Package 2 Weight             | 16.20 lb(US) (7.35 kg)  |
| Unit Type of Package 3       | P06                     |
| Number of Units in Package 3 | 320                     |
| Package 3 Height             | 29.53 in (75.0 cm)      |
| Package 3 Width              | 23.62 in (60.0 cm)      |
| Package 3 Length             | 31.50 in (80.0 cm)      |
| Package 3 Weight             | 147.27 lb(US) (66.8 kg) |

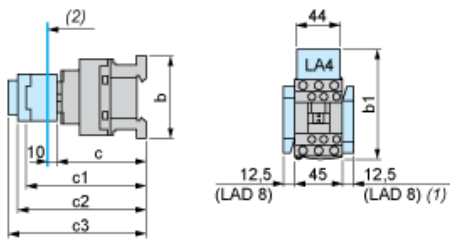
## Offer Sustainability

|                            |   |
|----------------------------|---|
| 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<br><a href="#">EU RoHS Declaration</a>  |
| Toxic heavy metal free     | Yes   |
| Mercury free               | Yes   |
| RoHS exemption information | <a href="#">Yes</a>   |
| China RoHS Regulation      | <a href="#">China RoHS declaration</a><br>Pro-active China RoHS declaration (out of China RoHS legal scope)   |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>   |
| Circularity Profile        | <a href="#">End of Life Information</a>   |
| WEEE                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.  |
| PVC free                   | Yes   |

## Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

**Dimensions**



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

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

**Wiring**

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**Recommended replacement(s)**