# Product data sheet

Specifications

## IEC contactor, TeSys Deca, nonreversing, 12A, 7.5HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, 110VAC 50/60Hz coil, open

LC1D12F7

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

## Price*: 142.80 USD

## 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-1 for power circuit<br>12 A (at <140 °F (60 °C)) at <= 440 V AC AC-3 for power circuit<br>12 A (at <140 °F (60 °C)) at <= 440 V AC AC-3e for power circuit |
| **[Uc] Control Circuit Voltage** | 110 V AC 50/60 Hz |

## Complementary

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|---|---|
| **Motor Power Kw** | 3 kW at 220...230 V AC 50/60 Hz (AC-3)<br>5.5 kW at 380...400 V AC 50/60 Hz (AC-3)<br>5.5 kW at 415...440 V AC 50/60 Hz (AC-3)<br>7.5 kW at 500 V AC 50/60 Hz (AC-3)<br>7.5 kW at 660...690 V AC 50/60 Hz (AC-3)<br>3.7 kW at 400 V AC 50/60 Hz (AC-4)<br>3 kW at 220...230 V AC 50/60 Hz (AC-3e)<br>5.5 kW at 380...400 V AC 50/60 Hz (AC-3e)<br>5.5 kW at 415...440 V AC 50/60 Hz (AC-3e)<br>7.5 kW at 500 V AC 50/60 Hz (AC-3e)<br>7.5 kW at 660...690 V AC 50/60 Hz (AC-3e) |
| **Maximum Horse Power Rating** | 0.5 hp at 115 V AC 50/60 Hz for 1 phase motors<br>2 hp at 230/240 V AC 50/60 Hz for 1 phase motors<br>3 hp at 200/208 V AC 50/60 Hz for 3 phase motors<br>3 hp at 230/240 V AC 50/60 Hz for 3 phase motors<br>7.5 hp at 460/480 V AC 50/60 Hz for 3 phase motors<br>10 hp at 575/600 V AC 50/60 Hz for 3 phase motors |
| **Compatibility Code** | LC1D |
| **Pole Contact Composition** | 3 NO |
| **Protective Cover** | With |

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

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

| | |
|---|---|
| **[Ith] Conventional Free Air Thermal Current** | 25 A (at 140 °F (60 °C)) for power circuit<br>10 A (at 140 °F (60 °C)) for signalling circuit |
| **Irms Rated Making Capacity** | 250 A at 440 V for power circuit conforming to IEC 60947<br>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 |
| **Rated Breaking Capacity** | 250 A at 440 V for power circuit conforming to IEC 60947 |
| **[Icw] Rated Short-Time Withstand Current** | 105 A 104 °F (40 °C) - 10 s for power circuit<br>210 A 104 °F (40 °C) - 1 s for power circuit<br>30 A 104 °F (40 °C) - 10 min for power circuit<br>61 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>40 A gG at <= 690 V coordination type 1 for power circuit<br>25 A gG at <= 690 V coordination type 2 for power circuit |
| **Average Impedance** | 2.5 mOhm - Ith 25 A 50 Hz for power circuit |
| **Power Dissipation Per Pole** | 0.36 W AC-3<br>1.56 W AC-1<br>0.36 W AC-3e |
| **[Ui] Rated Insulation Voltage** | Power circuit 690 V IEC 60947-4-1<br>Power circuit 600 V CSA<br>Power circuit 600 V UL<br>Signalling circuit 690 V IEC 60947-1<br>Signalling circuit 600 V CSA<br>Signalling circuit 600 V UL |
| **Overvoltage Category** | III |
| **Pollution Degree** | 3 |
| **[Uimp] 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** | 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 |
| **Control Circuit Type** | AC 50/60 Hz standard |
| **Coil Technology** | Without built-in suppressor module |
| **Control Circuit Voltage Limits** | 0.3...0.6 Uc -40…158 °F (-40…70 °C) drop-out AC 50/60 Hz<br>0.8...1.1 Uc -40…140 °F (-40…60 °C) operational AC 50 Hz<br>0.85...1.1 Uc -40…140 °F (-40…60 °C) operational AC 60 Hz<br>1...1.1 Uc 140…158 °F (60…70 °C) operational AC 50/60 Hz |
| **Inrush Power In Va** | 70 VA 60 Hz 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** | Power circuit: screw clamp terminals 1 0.00…0.01 in² (1…4 mm²) - cable stiffness: flexible without cable end<br>Power circuit: screw clamp terminals 2 0.00…0.01 in² (1…4 mm²) - cable stiffness: flexible without cable end<br>Power circuit: screw clamp terminals 1 0.00…0.01 in² (1…4 mm²) - cable stiffness: flexible with cable end<br>Power circuit: screw clamp terminals 2 0.00…0.00 in² (1…2.5 mm²) - cable stiffness: flexible with cable end<br>Power circuit: screw clamp terminals 1 0.00…0.01 in² (1…4 mm²) - cable stiffness: solid without cable end<br>Power circuit: screw clamp terminals 2 0.00…0.01 in² (1…4 mm²) - cable stiffness: solid without cable end<br>Control circuit: screw clamp terminals 1 0.00…0.01 in² (1…4 mm²) - cable stiffness: flexible without cable end<br>Control circuit: screw clamp terminals 2 0.00…0.01 in² (1…4 mm²) - cable stiffness: flexible without cable end<br>Control circuit: screw clamp terminals 1 0.00…0.01 in² (1…4 mm²) - cable stiffness: flexible with cable end<br>Control circuit: screw clamp terminals 2 0.00…0.00 in² (1…2.5 mm²) - cable stiffness: flexible with cable end<br>Control circuit: screw clamp terminals 1 0.00…0.01 in² (1…4 mm²) - cable stiffness: solid without cable end<br>Control circuit: screw clamp terminals 2 0.00…0.01 in² (1…4 mm²) - cable stiffness: solid without cable end |
| **Tightening Torque** | Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm<br>Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2<br>Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm<br>Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2<br>Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2<br>Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2 |
| **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<br>BV<br>DNV<br>LROS (Lloyds register of shipping)<br>RINA<br>UL<br>CCC<br>CSA<br>GOST<br>UKCA<br>CB |
| **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 open 10 Gn for 11 ms)<br>Shocks contactor closed 15 Gn for 11 ms) |
| **Height** | 3.03 in (77 mm) |
| **Width** | 1.77 in (45 mm) |
| **Depth** | 3.39 in (86 mm) |
| **Net Weight** | 0.72 lb(US) (0.325 kg) |

## Ordering and shipping details

| | |
|---|---|
| **Category** | US10I1222354 |
| **Discount Schedule** | 0I12 |
| **Gtin** | 3389110349221 |
| **Returnability** | Yes |
| **Country Of Origin** | ID |

## Packing Units

| | |
|---|---|
| **Unit Type Of Package 1** | PCE |
| **Number Of Units In Package 1** | 1 |
| **Package 1 Height** | 2.09 in (5.3 cm) |
| **Package 1 Width** | 3.70 in (9.4 cm) |
| **Package 1 Length** | 4.49 in (11.4 cm) |
| **Package 1 Weight** | 12.45 oz (353 g) |
| **Unit Type Of Package 2** | S02 |
| **Number Of Units In Package 2** | 20 |
| **Package 2 Height** | 5.91 in (15 cm) |
| **Package 2 Width** | 11.81 in (30 cm) |
| **Package 2 Length** | 15.75 in (40 cm) |
| **Package 2 Weight** | 16.61 lb(US) (7.535 kg) |
| **Unit Type Of Package 3** | P06 |
| **Number Of Units In Package 3** | 320 |
| **Package 3 Height** | 31.50 in (80 cm) |
| **Package 3 Width** | 31.50 in (80 cm) |
| **Package 3 Length** | 23.62 in (60 cm) |
| **Package 3 Weight** | 285.23 lb(US) (129.38 kg) |

## Contractual warranty

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

## Sustainability

**Green Premium™ label** is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-$CO_2$ products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >

Transparency RoHS/REACh

## Well-being performance

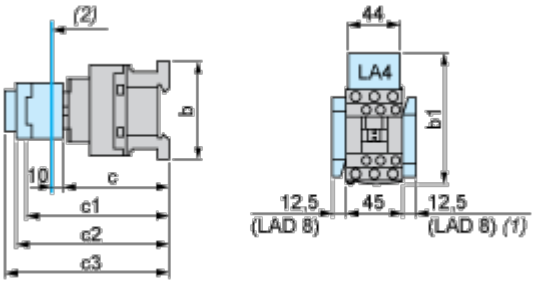
| | |
|---|---|
| Reach Free Of Svhc | |
| Toxic Heavy Metal Free | |
| Mercury Free | |
| Rohs Exemption Information | Yes |
| Pvc Free | |

## Certifications & Standards

| | |
|---|---|
| **Reach Regulation** | REACh Declaration |
| **Eu Rohs Directive** | Compliant<br>EU RoHS Declaration |
| **China Rohs Regulation** | China RoHS declaration<br>Pro-active China RoHS declaration (out of China RoHS legal scope) |
| **Environmental Disclosure** | Product Environmental Profile |
| **Weee** | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins. |
| **Circularity Profile** | End of Life Information |
| **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 www.P65Warnings.ca.gov |

## Dimensions Drawings

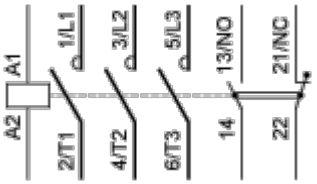
### Dimensions




(1) Including LAD 4BB

(2) Minimum electrical clearance

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

Connections and Schema

**Wiring**