# Product data sheet

Specifications

## Contactor, TeSys Deca, 3P(3NO), AC-3/3e, <=440V, 12A, 24V AC 50/60Hz coil, snap-in terminals

LC1D12AB7

**Product availability: Non-Stock - Not normally stocked in distribution facility**

## Main

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|---|---|
| **Range of Product** | TeSys Deca |
| **Product or Component Type** | Contactor |
| **Device short name** | LC1D |
| **Contactor application** | Motor control<br>Resistive load |
| **Utilisation category** | AC-1<br>AC-3<br>AC-3e<br>AC-4 |
| **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** | 12 A (at <140 °F (60 °C)) at <= 440 V AC-3 for power circuit<br>12 A (at <140 °F (60 °C)) at <= 440 V AC-3e for power circuit<br>25 A (at <140 °F (60 °C)) at <= 440 V AC-1 for power circuit |
| **[Uc] control circuit voltage** | 24 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) |
| **Compatibility code** | LC1D |
| **Pole contact composition** | 3 NO |
| **Protective cover** | With |
| **[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 |

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

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| **[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>0.36 W AC-3e<br>1.56 W AC-1 |
| **[Ui] rated insulation voltage** | Power circuit 690 V IEC 60947-4-1<br>Signalling circuit 690 V IEC 60947-1 |
| **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 at 60 °C |

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|---|---|
| **Connections - terminals** | Control circuit: snap-in terminal 1 0.0008…0.006 in² (0.5…4 mm²) - cable stiffness: flexible without cable end<br>Control circuit: snap-in terminal 2 0.0008…0.006 in² (0.5…4 mm²) - cable stiffness: flexible without cable end<br>Control circuit: snap-in terminal 1 0.0008…0.004 in² (0.5…2.5 mm²) - cable stiffness: flexible with cable end<br>Control circuit: snap-in terminal 2 0.0008…0.004 in² (0.5…2.5 mm²) - cable stiffness: flexible with cable end<br>Control circuit: snap-in terminal 1 0.0008…0.004 in² (0.5…2.5 mm²) - cable stiffness: solid without cable end<br>Control circuit: snap-in terminal 2 0.0008…0.004 in² (0.5…2.5 mm²) - cable stiffness: solid without cable end<br>Power circuit: snap-in terminal 1 0.0008…0.006 in² (0.5…4 mm²) - cable stiffness: flexible without cable end<br>Power circuit: snap-in terminal 2 0.0008…0.006 in² (0.5…4 mm²) - cable stiffness: flexible without cable end<br>Power circuit: snap-in terminal 1 0.0008…0.004 in² (0.5…2.5 mm²) - cable stiffness: flexible with cable end<br>Power circuit: snap-in terminal 2 0.0008…0.004 in² (0.5…2.5 mm²) - cable stiffness: flexible with cable end<br>Power circuit: snap-in terminal 1 0.0008…0.004 in² (0.5…2.5 mm²) - cable stiffness: solid without cable end<br>Power circuit: snap-in terminal 2 0.0008…0.004 in² (0.5…2.5 mm²) - cable stiffness: solid without cable end |
| **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** | Plate<br>Rail |

# Environment

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|---|---|
| **Standards** | EN 60947-4-1<br>IEC 60947-4-1<br>UL 60947-4-1<br>CSA C22.2 No 60947-4-1<br>IEC 60335-1:Clause 30.2<br>IEC 60335-2-40:Annex JJ<br>UL 60335-2-40:Annex JJ |
| **Product Certifications** | CB Scheme<br>CCC<br>cULus<br>CE<br>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 |
| **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 10 Gn for 11 ms) |

| | |
|---|---|
| **Height** | 4.2 in (107 mm) |
| **Width** | 1.8 in (45 mm) |
| **Depth** | 3.4 in (86 mm) |
| **Net Weight** | 13.7 oz (387 g) |

## Ordering and shipping details

| | |
|---|---|
| **Category** | US10I1222354 |
| **Discount Schedule** | 0I12 |
| **GTIN** | 3606487538943 |
| **Returnability** | No |
| **Country of origin** | FR |

## Packing Units

| | |
|---|---|
| **Unit Type of Package 1** | PCE |
| **Nbr. of units in pkg.** | 1 |
| **Package 1 Height** | 2.205 in (5.600 cm) |
| **Package 1 Width** | 4.567 in (11.600 cm) |
| **Package 1 Length** | 3.898 in (9.900 cm) |
| **Package weight(Lbs)** | 14.815 oz (420.000 g) |
| **Unit Type of Package 2** | S02 |
| **Number of Units in Package 2** | 15 |
| **Package 2 Height** | 5.906 in (15.000 cm) |
| **Package 2 Width** | 11.811 in (30.000 cm) |
| **Package 2 Length** | 15.748 in (40.000 cm) |
| **Package 2 Weight** | 14.154 lb(US) (6.420 kg) |
| **Unit Type of Package 3** | P06 |
| **Number of Units in Package 3** | 240 |
| **Package 3 Height** | 29.528 in (75.000 cm) |
| **Package 3 Width** | 23.622 in (60.000 cm) |
| **Package 3 Length** | 31.496 in (80.000 cm) |
| **Package 3 Weight** | 245.198 lb(US) (111.220 kg) |

## Contractual warranty

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|---|---|
| **Warranty (in months)** | 18 |

## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

### Environmental footprint

| | |
|---|---|
| Total lifecycle Carbon footprint | **19 kg CO2 eq.** |
| Environmental Disclosure | **Product Environmental Profile** |
| Carbon footprint of the manufacturing phase [A1 to A3] | **2 kg CO2 eq.** |
| Carbon footprint of the distribution phase [A4] | **0.2 kg CO2 eq.** |
| Carbon footprint of the installation phase [A5] | **0 kg CO2 eq.** |
| Carbon footprint of the use phase [B2, B3, B4, B6] | **16 kg CO2 eq.** |
| Carbon footprint of the end-of-life phase [C1 to C4] | **0.8 kg CO2 eq.** |

## Use Better

### Materials and Substances

| | |
|---|---|
| Packaging made with recycled cardboard | **Yes** |
| Packaging without single use plastic | **Yes** |
| EU RoHS Directive | **Compliant** |
| REACh Regulation | **REACh Declaration** |
| 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** |

## Use Longer

### Lifetime extension

| | |
|---|---|
| Repair | **No** |

## Use Again

### Repack and remanufacture

| | |
|---|---|
| Recyclability potential, in % | **66** |
| Circularity Profile | **End of Life Information** |
| Take-back | **No** |
| WEEE Label | **The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.** |

Technical Illustration

**Assembly's dimensions**