# Product datasheet

Specifications

**Green Premium™**

## TeSys Deca contactor - 3P(3 NO) - AC-3 - <= 440 V 12 A - 250 V DC coil

LC1D12UD

⚠ **Discontinued on:** 1 Nov 2020

⚠ **Discontinued**

## Main

| | |
|---|---|
| **Range** | TeSys |
| **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-1<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** | 25 A (at <60 °C) at <= 440 V AC AC-1 for power circuit<br>12 A (at <60 °C) at <= 440 V AC AC-3 for power circuit |
| **[Uc] Control Circuit Voltage** | 250 V DC |

## 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) |
| **Motor Power Hp** | 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 phases motors<br>3 hp at 230/240 V AC 50/60 Hz for 3 phases motors<br>7.5 hp at 460/480 V AC 50/60 Hz for 3 phases motors<br>10 hp at 575/600 V AC 50/60 Hz for 3 phases motors |
| **Compatibility Code** | LC1D |
| **Pole Contact Composition** | 3 NO |
| **Protective Cover** | With |
| **[Ith] Conventional Free Air Thermal Current** | 25 A (at 60 °C) for power circuit<br>10 A (at 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 |

Excluding VAT, FCA Jabal Ali & are subject to change – check with your local distributor.

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|---|---|
| **[Icw] Rated Short-Time Withstand Current** | 105 A 40 °C - 10 s for power circuit<br>210 A 40 °C - 1 s for power circuit<br>30 A 40 °C - 10 min for power circuit<br>61 A 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 |
| **[Ui] Rated Insulation Voltage** | Power circuit: 690 V conforming to IEC 60947-4-1<br>Power circuit: 600 V CSA certified<br>Power circuit: 600 V UL certified<br>Signalling circuit: 690 V conforming to IEC 60947-1<br>Signalling circuit: 600 V CSA certified<br>Signalling circuit: 600 V UL certified |
| **Overvoltage Category** | III |
| **Pollution Degree** | 3 |
| **[Uimp] Rated Impulse Withstand Voltage** | 6 kV conforming to IEC 60947 |
| **Safety Reliability Level** | B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 |
| **Mechanical Durability** | 30 Mcycles |
| **Electrical Durability** | 2 Mcycles 12 A AC-3 at Ue <= 440 V<br>0.8 Mcycles 25 A AC-1 at Ue <= 440 V |
| **Control Circuit Type** | DC standard |
| **Coil Technology** | With integral suppression device |
| **Control Circuit Voltage Limits** | 0.1...0.25 Uc (-40…70 °C):drop-out DC<br>0.7...1.25 Uc (-40…60 °C):operational DC<br>1...1.25 Uc (60…70 °C):operational DC |
| **Inrush Power In W** | 5.4 W (at 20 °C) |
| **Hold-In Power Consumption In W** | 5.4 W at 20 °C |
| **Operating Time** | 63 ±15 % ms closing<br>20 ±20 % ms opening |
| **Time Constant** | 28 ms |
| **Maximum Operating Rate** | 3600 cyc/h 60 °C |

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| Connections - Terminals | Power circuit: screw clamp terminals 1 1…4 mm² - cable stiffness: flexible without cable end |
|---|---|
| | Power circuit: screw clamp terminals 2 1…4 mm² - cable stiffness: flexible without cable end |
| | Power circuit: screw clamp terminals 1 1…4 mm² - cable stiffness: flexible with cable end |
| | Power circuit: screw clamp terminals 2 1…2.5 mm² - cable stiffness: flexible with cable end |
| | Power circuit: screw clamp terminals 1 1…4 mm² - cable stiffness: solid without cable end |
| | Power circuit: screw clamp terminals 2 1…4 mm² - cable stiffness: solid without cable end |
| | Control circuit: screw clamp terminals 1 1…4 mm² - cable stiffness: flexible without cable end |
| | Control circuit: screw clamp terminals 2 1…4 mm² - cable stiffness: flexible without cable end |
| | Control circuit: screw clamp terminals 1 1…4 mm² - cable stiffness: flexible with cable end |
| | Control circuit: screw clamp terminals 2 1…2.5 mm² - cable stiffness: flexible with cable end |
| | Control circuit: screw clamp terminals 1 1…4 mm² - cable stiffness: solid without cable end |
| | Control circuit: screw clamp terminals 2 1…4 mm² - cable stiffness: solid without cable end |
| Tightening Torque | Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm |
| | Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2 |
| | Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm |
| | Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2 |
| Auxiliary Contact Composition | 1 NO + 1 NC |
| Auxiliary Contacts Type | type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1 |
| | type mirror contact 1 NC conforming to 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 |
| | 1.5 ms on energisation between NC and NO contact |
| Mounting Support | Plate |
| | Rail |

# Environment

| Standards | CSA C22.2 No 14 |
|---|---|
| | EN 60947-4-1 |
| | EN 60947-5-1 |
| | IEC 60947-4-1 |
| | IEC 60947-5-1 |
| | UL 508 |
| Product Certifications | DNV |
| | CCC |
| | UL |
| | GOST |
| | BV |
| | LROS (Lloyds register of shipping) |
| | GL |
| | CSA |
| | RINA |
| Ip Degree Of Protection | IP20 front face conforming to IEC 60529 |
| Protective Treatment | TH conforming to IEC 60068-2-30 |
| Climatic Withstand | conforming to IACS E10 exposure to damp heat |
| | conforming to IEC 60947-1 Annex Q category D exposure to damp heat |
| Permissible Ambient Air Temperature Around The Device | -40…60 °C |
| | 60…70 °C with derating |

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|---|---|
| **Operating Altitude** | 0...3000 m |
| **Fire Resistance** | 850 °C conforming to 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** | 77 mm |
| **Width** | 45 mm |
| **Depth** | 95 mm |
| **Net Weight** | 0.485 kg |

## Packing Units

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|---|---|
| **Unit Type Of Package 1** | PCE |
| **Number Of Units In Package 1** | 1 |
| **Package 1 Height** | 4.9 cm |
| **Package 1 Width** | 11.1 cm |
| **Package 1 Length** | 8.9 cm |
| **Package 1 Weight** | 362 g |

## Contractual warranty

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

# Sustainability ![Green Premium]

**Green Premium<sup>TM</sup> 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

| | | |
|---|---|---|
| ✅ | Mercury Free | |
| ✅ | Rohs Exemption Information | Yes |
| ✅ | Pvc Free | |

## Certifications & Standards

| | |
|---|---|
| **Eu Rohs Directive** | Compliant |
| | EU RoHS Declaration |
| **China Rohs Regulation** | China RoHS declaration |
| | Product out of China RoHS scope. Substance declaration for your information |
| **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 |