# Product datasheet

Specifications

## contactor TeSys Deca - 4 poles - AC-1 440V 80 A - coil 48 V AC

LC1D65004E5

Discontinued on: 1 Jan 2008

Discontinued

## Main

| | |
|---|---|
| **Range of product** | TeSys Deca |
| **Product or component type** | Contactor |
| **Device short name** | LC1D |
| **Contactor application** | Resistive load |
| **Utilisation category** | AC-1 |
| **Poles description** | 4P |
| **[Ue] rated operational voltage** | Power circuit: <= 690 V AC 25...400 Hz |
| **[Ie] rated operational current** | 80 A (at <60 °C) AC AC-1 for power circuit |
| **[Uc] control circuit voltage** | 48 V AC 50 Hz |

## Complementary

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|---|---|
| **Motor power hp** | 10 hp at 230/240 V AC 60 Hz for 1 phase motors conforming to CSA<br>10 hp at 230/240 V AC 60 Hz for 1 phase motors conforming to UL<br>20 hp at 200/208 V AC 60 Hz for 3 phases motors conforming to CSA<br>20 hp at 200/208 V AC 60 Hz for 3 phases motors conforming to UL<br>20 hp at 230/240 V AC 60 Hz for 3 phases motors conforming to CSA<br>20 hp at 230/240 V AC 60 Hz for 3 phases motors conforming to UL<br>5 hp at 115 V AC 60 Hz for 1 phase motors conforming to CSA<br>5 hp at 115 V AC 60 Hz for 1 phase motors conforming to UL<br>50 hp at 460/480 V AC 60 Hz for 3 phases motors conforming to CSA<br>50 hp at 460/480 V AC 60 Hz for 3 phases motors conforming to UL<br>50 hp at 575/600 V AC 60 Hz for 3 phases motors conforming to CSA<br>50 hp at 575/600 V AC 60 Hz for 3 phases motors conforming to UL |
| **Compatibility code** | LC1D |
| **Pole contact composition** | 4 NO |
| **Protective cover** | With |
| **[Ith] conventional free air thermal current** | 10 A (at 60 °C) for control circuit<br>80 A (at 60 °C) for power circuit |
| **Irms rated making capacity** | 1000 A at 440 V for power circuit conforming to IEC 60947<br>140 A AC for control circuit conforming to IEC 60947-5-1 |
| **Rated breaking capacity** | 1000 A at 440 V for power circuit conforming to IEC 60947 |
| **Associated fuse rating** | 10 A gG for control circuit conforming to IEC 60947-5-1<br>125 A gG at <= 690 V coordination type 1 for power circuit<br>125 A gG at <= 690 V coordination type 2 for power circuit |
| **Average impedance** | 1 mOhm - Ith 80 A 50 Hz for power circuit |
| **Power dissipation per pole** | 6.4 W AC-1 |

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|---|---|
| **[Ui] rated insulation voltage** | Control circuit: 600 V CSA certified<br>Control circuit: 600 V UL certified<br>Power circuit: 600 V CSA certified<br>Power circuit: 600 V UL certified<br>Control circuit: 690 V conforming to IEC 60947-1<br>Power circuit: 690 V conforming to IEC 60947-1 |
| **Overvoltage category** | III |
| **[Uimp] rated impulse withstand voltage** | 8 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** | 6000000 cycles |
| **Control circuit type** | AC at 50 Hz standard |
| **Coil technology** | Without built-in bidirectional peak limiting diode suppressor |
| **Control circuit voltage limits** | 0.3...0.6 Uc (60 °C):drop-out AC 50/60 Hz<br>0.8...1.1 Uc (60 °C):operational AC 50 Hz<br>0.85...1.1 Uc (60 °C):operational AC 60 Hz |
| **Inrush power in VA** | 140 VA cos phi 0.75 (at 20 °C)<br>160 VA cos phi 0.75 (at 20 °C) |
| **Hold-in power consumption in VA** | 13 VA 60 Hz cos phi 0.3 (at 20 °C)<br>15 VA 50 Hz cos phi 0.3 (at 20 °C) |
| **Heat dissipation** | 4…5 W at 50/60 Hz for control circuit |
| **Operating time** | 12...26 ms closing<br>4...19 ms opening |
| **Connections - terminals** | Control circuit: screw clamp terminal 1 1…4 mm² - cable stiffness: solid without cable end<br>Control circuit: screw clamp terminal 2 1…4 mm² - cable stiffness: flexible without cable end<br>Control circuit: screw clamp terminal 2 1…4 mm² - cable stiffness: solid without cable end<br>Power circuit: screw clamp terminal 1 1…35 mm² - cable stiffness: solid without cable end<br>Power circuit: screw clamp terminal 2 1…35 mm² - cable stiffness: solid without cable end |
| **Tightening torque** | Control circuit: 1.2 N.m - on screw clamp terminal - with screwdriver flat Ø 6 mm<br>Control circuit: 1.2 N.m - on screw clamp terminal - with screwdriver Philips No 2<br>Power circuit: 5 N.m - on screw clamp terminal - with screwdriver flat Ø 6 mm<br>Power circuit: 5 N.m - on screw clamp terminal - with screwdriver flat Ø 8 mm<br>Control circuit: 1.2 N.m - on screw clamp terminal - with screwdriver pozidriv No 2 |
| **Auxiliary contacts type** | type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1<br>type mirror contact 1 NC conforming to IEC 60947-4-1 |
| **Minimum switching voltage** | 17 V for control circuit |
| **Minimum switching current** | 5 mA for control circuit |
| **Insulation resistance** | > 10 MOhm for control circuit |
| **Non-overlap time** | 1.5 ms on de-energisation between NC and NO contacts<br>1.5 ms on energisation between NC and NO contacts |
| **Mounting support** | Plate<br>Rail |

# Environment

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|---|---|
| **Standards** | IEC 60947-4-1<br>UL 508<br>IEC 60947-5-1<br>CSA C22.2 No 14<br>EN 60947-4-1<br>EN 60947-5-1 |

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|---|---|
| **Product certifications** | RINA<br>BV<br>UL<br>GL<br>LROS (Lloyds register of shipping)<br>CCC<br>GOST<br>DNV<br>CSA |
| **IP degree of protection** | IP2X conforming to IEC 60529<br>IP2X conforming to VDE 0106 |
| **Protective treatment** | TH (pollution degree 3) conforming to IEC 60068 |
| **Permissible ambient air temperature around the device** | -5…60 °C<br>-40…70 °C at Uc |
| **Operating altitude** | 3000 m without derating |
| **Fire resistance** | 850 °C conforming to IEC 60695-2-1 |
| **Flame retardance** | V1 conforming to UL 94 |
| **Mechanical robustness** | Shocks contactor open (8 Gn for 11 ms)<br>Shocks contactor closed (10 Gn for 11 ms)<br>Vibrations contactor opened (2 Gn, 5...300 Hz)<br>Vibrations contactor closed (3 Gn, 5...300 Hz) |
| **Height** | 127 mm |
| **Width** | 85 mm |
| **Depth** | 130 mm |
| **Product weight** | 1.44 kg |

## Packing Units

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|---|---|
| **Unit Type of Package 1** | PCE |
| **Number of Units in Package 1** | 1 |
| **Package 1 Height** | 13.2 cm |
| **Package 1 Width** | 13 cm |
| **Package 1 Length** | 9.5 cm |
| **Package 1 Weight** | 1.449 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

| | |
|---|---|
| Environmental Disclosure | Product Environmental Profile |

## Use Better

### Materials and Substances

| | |
|---|---|
| EU RoHS Directive | Compliant |
| PVC free | Yes |

## Use Longer

### Lifetime extension

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

## Use Again

### Repack and remanufacture

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|---|---|
| End of life manual availability | End of Life Information |
| WEEE Label | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |