# Product data sheet

Specifications

## Contactor, TeSys Deca, 3P(3NO),AC-3/AC-3e/<=440V 65A,24V AC 50/60Hz coil, screw clamp terminals

LC1D65B7

## Main

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|---|---|
| **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-4<br>AC-1<br>AC-2<br>AC-3e<br>AC-1 |
| **poles description** | 3P |
| **[Ue] rated operational voltage** | Power circuit <= 690 V AC 25...400 Hz |
| **[Ie] rated operational current** | 65 A (at <140 °F (60 °C)) at <= 440 V AC AC-3 for power circuit<br>65 A (at <140 °F (60 °C)) at <= 440 V AC AC-3e for power circuit<br>65 A (at <140 °F (60 °C)) at 24 V AC AC-3 for power circuit<br>80 A (at <140 °F (60 °C)) at 24 V AC AC-1 for power circuit |
| **[Uc] control circuit voltage** | 24 V AC 50/60 Hz |

## Complementary

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| **Motor power kW** | 11 kW at 400 V AC 50 Hz (AC-4)<br>30 kW at 380...400 V AC 50 Hz (AC-3)<br>37 kW at 500 V AC 50 Hz (AC-3)<br>37 kW at 660...690 V AC 50 Hz (AC-3)<br>18.5 kW at 220...230 V AC 50 Hz (AC-3)<br>30 kW at 415 V AC 50 Hz (AC-3)<br>37 kW at 1000 V AC 50 Hz (AC-3)<br>30 kW at 440 V AC 50 Hz (AC-3e)<br>30 kW at 380...400 V AC 50 Hz (AC-3e)<br>37 kW at 500 V AC 50 Hz (AC-3e)<br>37 kW at 660...690 V AC 50 Hz (AC-3e)<br>18.5 kW at 220...230 V AC 50 Hz (AC-3e)<br>30 kW at 415 V AC 50 Hz (AC-3e)<br>37 kW at 1000 V AC 50 Hz (AC-3e)<br>37 kW at 500 V AC 50 Hz<br>30 kW at 380...400 V AC 50 Hz |
| **Motor power hp** | 10 hp at 230/240 V AC 60 Hz for 1 phase motors<br>20 hp at 200/208 V AC 60 Hz for 3 phases motors<br>20 hp at 230/240 V AC 60 Hz for 3 phases motors<br>40 hp at 460/480 V AC 60 Hz for 3 phases motors<br>50 hp at 575/600 V AC 60 Hz for 3 phases motors<br>5 hp at 115 V AC 60 Hz for 1 phase motors |
| **Compatibility code** | LC1D |
| **Pole contact composition** | 3 NO |
| **Protective cover** | With |

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

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|---|---|
| **[Ith] conventional free air thermal current** | 80 A (at 140 °F (60 °C)) for power circuit<br>10 A (at 140 °F (60 °C)) for control circuit |
| **Irms rated making capacity** | 140 A at 440 V AC for control circuit conforming to IEC 60947-5-1<br>140 A AC for control circuit conforming to IEC 60947-5-1<br>1000 A at 440 V for power circuit conforming to IEC 60947 |
| **Rated breaking capacity** | 1000 kA at 440 V for power circuit conforming to IEC 60947 |
| **[Icw] rated short-time withstand current** | 520 A 104 °F (40 °C) - 10 s for power circuit<br>900 A 104 °F (40 °C) - 1 s for power circuit |
| **Associated fuse rating** | 125 A gG at <= 690 V coordination type 2 for power circuit<br>160 A gG at <= 690 V coordination type 1 for power circuit conforming to IEC 60947-5-1<br>125 A gG at <= 690 V coordination type 1 for power circuit<br>10 A gG for control circuit conforming to IEC 60947-5-1 |
| **Average impedance** | 1.5 Ohm - Ith 80 A 50 Hz for power circuit |
| **Power dissipation per pole** | 6.4 W AC-1<br>4.2 W AC-3e<br>6.3 W AC-3<br>9.6 W AC-1 |
| **[Ui] rated insulation voltage** | Control circuit 600 V UL<br>Power circuit 600 V CSA<br>Power circuit 600 V UL IEC 60947-1<br>Control circuit 690 V IEC 60947-1<br>Power circuit 690 V CSA IEC 60947-1<br>Control circuit 600 V CSA |
| **Overvoltage category** | III |
| **[Uimp] rated impulse withstand voltage** | 6 kV IEC 60947 |
| **Safety reliability level** | B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1 |
| **Mechanical durability** | 6000000 cycles |
| **Control circuit type** | AC 50/60 Hz |
| **Coil technology** | Without built-in |
| **Control circuit voltage limits** | 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<br>0.3...0.6 Uc -40…158 °F (-40…70 °C) drop-out AC 50/60 Hz |
| **Inrush power in VA** | 160 VA cos phi 0.75 (at 68 °F (20 °C))<br>140 VA cos phi 0.75 (at 68 °F (20 °C)) |
| **Hold-in power consumption in VA** | 15 VA 50 Hz cos phi 0.3 (at 68 °F (20 °C))<br>13 VA 60 Hz cos phi 0.3 (at 68 °F (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 |
| **Maximum operating rate** | 3600 cyc/mn 140 °F (60 °C) |

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| **Connections - terminals** | Control circuit: screw clamp terminals 2 0.002…0.006 in² (1…4 mm²) - cable stiffness: rigid without cable end<br>Control circuit: screw clamp terminals 1 0.002…0.006 in² (1…4 mm²) - cable stiffness: flexible without cable end<br>Control circuit: screw clamp terminals 2 0.002…0.006 in² (1…4 mm²) - cable stiffness: flexible without cable end<br>Control circuit: screw clamp terminals 1 0.002…0.004 in² (1…2.5 mm²) - cable stiffness: flexible with cable end<br>Control circuit: screw clamp terminals 2 0.002…0.004 in² (1…2.5 mm²) - cable stiffness: flexible with cable end<br>Power circuit: screw terminals 1 0.004…0.04 in² (2.5…25 mm²) - cable stiffness: rigid<br>Power circuit: screw terminals 2 0.004…0.02 in² (2.5…16 mm²) - cable stiffness: rigid without cable end<br>Power circuit: screw terminals 1 0.004…0.04 in² (2.5…25 mm²) - cable stiffness: flexible without cable end<br>Power circuit: screw terminals 2 0.004…0.02 in² (2.5…16 mm²) - cable stiffness: flexible without cable end<br>Power circuit: screw terminals 1 0.004…0.04 in² (2.5…25 mm²) - cable stiffness: flexible with cable end<br>Power circuit: screw terminals 2 0.004…0.02 in² (2.5…10 mm²) - cable stiffness: flexible with cable end<br>Control circuit: screw clamp terminals 2 0.002…0.006 in² (1…4 mm²) - cable stiffness: rigid<br>Control circuit: screw clamp terminals 1 0.002…0.006 in² (1…4 mm²) - cable stiffness: rigid |
| **Tightening torque** | Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminal Philips No 2<br>Power circuit 44.3 lbf.in (5 N.m) screw terminal flat Ø 6 to Ø 8 mm<br>Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminal pozidriv No 2<br>Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminal flat Ø 6 mm |
| **Auxiliary contact composition** | 1 NO + 1 NC |
| **Auxiliary contacts type** | Mirror contact 1 NC IEC 60947-4-1<br>Mechanically linked 1 NO + 1 NC IEC 60947-5-1 |
| **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 energisation between NC and NO contacts<br>1.5 ms on de-energisation between NC and NO contacts |
| **mounting support** | Rail<br>Rail |

## Environment

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|---|---|
| **Standards** | UL 508<br>EN 60947-5-1<br>EN 60947-4-1<br>IEC 60947-5-1<br>CSA C22.2 No 14 |
| **product certifications** | UL<br>CCC<br>BV<br>GL<br>GOST<br>RINA<br>LROS (Lloyds register of shipping)<br>DNV<br>UKCA<br>GL |
| **IP degree of protection** | IP2X VDE 0106<br>IP2X IEC 60529 |
| **Protective treatment** | TH 3)IEC 60068-2-30 |
| **Climatic withstand** | IACS E10 exposure to damp heat |
| **Operating altitude** | 0...3000 m |
| **Fire resistance** | 1562 °F (850 °C) IEC 60695-2-1 |

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| **Flame retardance** | V1 UL 94 |
| **Mechanical robustness** | Shocks contactor closed 15 Gn for 11 ms)<br>Vibrations contactor opened 2 Gn, 5...300 Hz)<br>Vibrations contactor closed 4 Gn, 5...300 Hz)<br>Shocks contactor opened 10 Gn for 11 ms) |
| **Height** | 4.8 in (122 mm) |
| **Width** | 2.8 in (70 mm) |
| **Depth** | 4.6 in (118 mm) |
| **Net weight** | 4.817 lb(US) (2.185 kg) |
| **Quantity per set** | Set of 10 |

## Packing Units

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|---|---|
| **Unit Type of Package 1** | PCE |
| **Number of Units in Package 1** | 1 |
| **Package 1 Height** | 3.7 in (9.5 cm) |
| **Package 1 Width** | 5.2 in (13.2 cm) |
| **Package 1 Length** | 5.5 in (14.0 cm) |
| **Package 1 Weight** | 3.201 lb(US) (1.452 kg) |
| **Unit Type of Package 2** | S02 |
| **Number of Units in Package 2** | 5 |
| **Package 2 Height** | 5.9 in (15 cm) |
| **Package 2 Width** | 11.8 in (30 cm) |
| **Package 2 Length** | 15.7 in (40 cm) |
| **Package 2 Weight** | 16.724 lb(US) (7.586 kg) |

## Contractual warranty

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

## Sustainability

**Green Premium$^{TM}$ 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

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

## Certifications & Standards

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|---|---|
| **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** | No need of specific recycling operations |

Offer Marketing Illustration

**Product benefits / Features**