# Product data sheet

Specifications

## Contactor, TeSys Deca, 3P(3NO), AC-3/AC-3e, <=440V 80A, 32V DC wide voltage range coil, lugs-ring terminals

LC1D806BNW

## Main

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|---|---|
| **Range** | TeSys |
| **range of product** | TeSys Deca |
| **product or component type** | Contactor |
| **Device short name** | LC1D |
| **contactor application** | Motor control<br>Resistive load |
| **Utilisation category** | AC-3<br>AC-3e<br>AC-4<br>AC-1 |
| **poles description** | 3P |
| **[Ue] rated operational voltage** | Power circuit: <= 300 V DC 25...400 Hz<br>Power circuit: <= 690 V AC |
| **[Ie] rated operational current** | 125 A (at <60 °C) at <= 440 V AC AC-1 for power circuit<br>80 A (at <60 °C) at <= 440 V AC AC-3 for power circuit<br>80 A (at <60 °C) at <= 440 V AC AC-3e for power circuit |
| **[Uc] control circuit voltage** | 32 V DC |

## Complementary

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| **Motor power kW** | 22 kW at 220...230 V AC 50/60 Hz (AC-3)<br>37 kW at 380...400 V AC 50/60 Hz (AC-3)<br>45 kW at 415...440 V AC 50/60 Hz (AC-3)<br>55 kW at 500 V AC 50/60 Hz (AC-3)<br>45 kW at 660...690 V AC 50/60 Hz (AC-3)<br>15 kW at 400 V AC 50/60 Hz (AC-4)<br>22 kW at 220...230 V AC 50/60 Hz (AC-3e)<br>37 kW at 380...400 V AC 50/60 Hz (AC-3e)<br>45 kW at 415...440 V AC 50/60 Hz (AC-3e)<br>55 kW at 500 V AC 50/60 Hz (AC-3e)<br>45 kW at 660...690 V AC 50/60 Hz (AC-3e) |
| **Motor power hp** | 7.5 hp at 120 V AC 50/60 Hz for 1 phase motors<br>15 hp at 230/240 V AC 50/60 Hz for 1 phase motors<br>30 hp at 200/208 V AC 50/60 Hz for 3 phases motors<br>30 hp at 230/240 V AC 50/60 Hz for 3 phases motors<br>60 hp at 460/480 V AC 50/60 Hz for 3 phases motors<br>60 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** | 10 A (at 60 °C) for signalling circuit<br>125 A (at 60 °C) for power circuit |
| **Irms rated making capacity** | 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<br>1100 A at 440 V for power circuit conforming to IEC 60947 |

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| **Rated breaking capacity** | 1100 A at 440 V for power circuit conforming to IEC 60947 |
| **[Icw] rated short-time withstand current** | 640 A 40 °C - 10 s for power circuit<br>990 A 40 °C - 1 s for power circuit<br>135 A 40 °C - 10 min for power circuit<br>320 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>200 A gG at <= 690 V coordination type 1 for power circuit<br>160 A gG at <= 690 V coordination type 2 for power circuit |
| **Average impedance** | 0.8 mOhm - Ith 125 A 50 Hz for power circuit |
| **Power dissipation per pole** | 5.1 W AC-3<br>12.5 W AC-1<br>5.1 W AC-3e |
| **[Ui] rated insulation voltage** | Power circuit: 600 V CSA certified<br>Power circuit: 600 V UL certified<br>Power circuit: 1000 V conforming to IEC 60947-4-1<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** | 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** | 10 Mcycles |
| **Electrical durability** | 0.8 Mcycles 125 A AC-1 at Ue <= 440 V<br>1.5 Mcycles 80 A AC-3 at Ue <= 440 V<br>1.5 Mcycles 80 A AC-3e at Ue <= 440 V |
| **Control circuit type** | DC wide range |
| **Coil technology** | Without built-in suppressor module |
| **Control circuit voltage limits** | 0.75...1.2 Uc (-40…55 °C):operational DC<br>0.1...0.3 Uc (-40…70 °C):drop-out DC<br>1...1.2 Uc (55…70 °C):operational DC |
| **Inrush power in W** | 22 W (at 20 °C) |
| **Hold-in power consumption in W** | 22 W at 20 °C |
| **Operating time** | 95...130 ms closing<br>20...35 ms opening |
| **Time constant** | 75 ms |
| **Maximum operating rate** | 3600 cyc/h 60 °C |
| **Maximum operating rate** | 3600 cyc/h at 60 °C |
| **Connections - terminals** | Control circuit: lugs-ring terminals - external diameter: 8 mm<br>Power circuit: bars 1 - busbar cross section: 3 x 16 mm<br>Power circuit: lugs-ring terminals - external diameter: 17 mm |
| **Tightening torque** | Control circuit: 1.2 N.m - on lugs-ring terminals - with screwdriver flat Ø 6 mm M3.5<br>Control circuit: 1.2 N.m - on lugs-ring terminals - with screwdriver Philips No 2 M3.5<br>Power circuit: 5 N.m - on lugs-ring terminals - with screwdriver flat Ø 8 mm M6<br>Power circuit: 5 N.m - on lugs-ring terminals hexagonal screw head 10 mm M6<br>Power circuit: 5 N.m - on bars - with screwdriver flat Ø 8 mm M6<br>Power circuit: 5 N.m - on bars hexagonal screw head 10 mm M6<br>Control circuit: 1.2 N.m - on lugs-ring terminals - with screwdriver pozidriv No 2 M3.5 |
| **Auxiliary contact composition** | 1 NO + 1 NC |
| **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 |

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|---|---|
| **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

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|---|---|
| **Standards** | EN 60947-4-1<br>EN 60947-5-1<br>IEC 60947-4-1<br>IEC 60947-5-1<br>CSA C22.2 No 14<br>UL 60947-4-1<br>IEC 60335-2-40:Annex JJ<br>UL 60335-2-40:Annex JJ<br>IEC 60335-1:Clause 30.2 |
| **Product certifications** | CCC<br>UL<br>CB Scheme<br>CSA<br>CE<br>UKCA<br>Marine<br>EAC |
| **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 |
| **Permissible ambient air temperature around the device** | -40…60 °C<br>60…70 °C with derating |
| **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>Shocks contactor open (8 Gn for 11 ms)<br>Vibrations contactor closed (3 Gn, 5...300 Hz)<br>Shocks contactor closed (10 Gn for 11 ms) |
| **Height** | 127 mm |
| **Width** | 85 mm |
| **Depth** | 186 mm |
| **net weight** | 2.59 kg |

## Packing Units

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|---|---|
| **Unit Type of Package 1** | PCE |
| **Number of Units in Package 1** | 1 |
| **Package 1 Height** | 19.5 cm |
| **Package 1 Width** | 14.0 cm |
| **Package 1 Length** | 9.5 cm |
| **Package 1 Weight** | 2.385 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

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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**

Offer Marketing Illustration

**Product benefits / Features**

Offer Marketing Illustration

**Product benefits / Features**