

# Product datasheet

Specifications



Contacteur, TeSys Deca,  
3P(3NO),AC-3/AC-3e/<=440V 50A,  
120V AC 50/60Hz coil, screw clamp  
terminals

LC1D50G7

EAN Code: 3389110421453

! Discontinued

## Main

|                                |   |
|--------------------------------|---|
| Range                          | TeSys   |
| Range of product               | TeSys Deca  |
| Product or component type      | Contacteur  |
| Device short name              | LC1D  |
| Contacteur application         | Motor control<br>Resistive load   |
| Utilisation category           | AC-3<br>AC-2<br>AC-4<br>AC-1<br>AC-3e   |
| Poles description              | 3P  |
| [Ue] rated operational voltage | Power circuit: <= 690 V AC 25...400 Hz  |
| [Ie] rated operational current | 80 A (at <60 °C) at <= 440 V AC AC-1 for power circuit<br>50 A (at <60 °C) at <= 440 V AC AC-3 for power circuit<br>50 A (at <60 °C) at <= 440 V AC AC-3e for power circuit |
| [Uc] control circuit voltage   | 120 V AC 50/60 Hz   |

## Complementary

|   |  |
|---|--|
| Motor power kW                              | 22 kW at 380...400 V AC 50/60 Hz (AC-3)<br>25 kW at 415 V AC 50/60 Hz (AC-3)<br>30 kW at 440 V AC 50/60 Hz (AC-3)<br>30 kW at 500 V AC 50/60 Hz (AC-3)<br>33 kW at 660...690 V AC 50/60 Hz (AC-3)<br>15 kW at 220...230 V AC 50/60 Hz (AC-3)<br>11 kW at 400 V AC 50/60 Hz (AC-4)  |
| Motor power hp                              | 3 hp at 115 V AC 60 Hz for 1 phase motors conforming to CSA<br>3 hp at 115 V AC 60 Hz for 1 phase motors conforming to UL<br>15 hp at 200/208 V AC 60 Hz for 3 phases motors conforming to CSA<br>15 hp at 200/208 V AC 60 Hz for 3 phases motors conforming to UL<br>15 hp at 230/240 V AC 60 Hz for 3 phases motors conforming to CSA<br>15 hp at 230/240 V AC 60 Hz for 3 phases motors conforming to UL<br>40 hp at 460/480 V AC 60 Hz for 3 phases motors conforming to CSA<br>40 hp at 460/480 V AC 60 Hz for 3 phases motors conforming to UL<br>40 hp at 575/600 V AC 60 Hz for 3 phases motors conforming to CSA<br>40 hp at 575/600 V AC 60 Hz for 3 phases motors conforming to UL<br>7.5 hp at 230/240 V AC 60 Hz for 1 phase motors conforming to CSA<br>7.5 hp at 230/240 V AC 60 Hz for 1 phase motors conforming to UL |
| Compatibility code                          | LC1D   |
| Pole contact composition                    | 3 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   |

|   |  |
|---|--|
| <b>Irms rated making capacity</b>             | 140 A AC for control circuit conforming to IEC 60947-5-1<br>900 A at 440 V for power circuit conforming to IEC 60947   |
| <b>Rated breaking capacity</b>                | 900 A at 440 V for power circuit conforming to IEC 60947   |
| <b>Associated fuse rating</b>                 | 10 A gG for control circuit conforming to IEC 60947-5-1<br>100 A gG at ≤ 690 V coordination type 1 for power circuit<br>100 A gG at ≤ 690 V coordination type 2 for power circuit  |
| <b>Average impedance</b>                      | 1.5 mOhm - lth 80 A 50 Hz for power circuit  |
| <b>Power dissipation per pole</b>             | 3.7 W AC-3<br>9.6 W AC-1<br>3.7 W AC-3e  |
| <b>[Ui] rated insulation voltage</b>          | 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   |
| <b>Overvoltage category</b>                   | III  |
| <b>[Uimp] rated impulse withstand voltage</b> | 6 kV conforming to IEC 60947   |
| <b>Safety reliability level</b>               | 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   |
| <b>Mechanical durability</b>                  | 6 Mcycles  |
| <b>Control circuit type</b>                   | AC at 50/60 Hz   |
| <b>Coil technology</b>                        | Without built-in bidirectional peak limiting diode suppressor  |
| <b>Control circuit voltage limits</b>         | 0.3...0.6 U <sub>c</sub> (60 °C):drop-out AC 50/60 Hz<br>0.8...1.1 U <sub>c</sub> (60 °C):operational AC 50 Hz<br>0.85...1.1 U <sub>c</sub> (60 °C):operational AC 60 Hz   |
| <b>Inrush power in VA</b>                     | 140 VA cos phi 0.75 (at 20 °C)<br>160 VA cos phi 0.75 (at 20 °C)   |
| <b>Hold-in power consumption in VA</b>        | 13 VA 50 Hz cos phi 0.3 (at 20 °C)<br>15 VA 60 Hz cos phi 0.3 (at 20 °C)   |
| <b>Heat dissipation</b>                       | 4...5 W at 50/60 Hz for control circuit  |
| <b>Operating time</b>                         | 12...26 ms closing<br>4...19 ms opening  |
| <b>Maximum operating rate</b>                 | 3600 cyc/h at 60 °C  |
| <b>Connections - terminals</b>                | Control circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: solid without cable end<br>Control circuit: screw clamp terminals 2 1...4 mm <sup>2</sup> - cable stiffness: solid without cable end<br>Control circuit: screw clamp terminals 1 1...2.5 mm <sup>2</sup> - cable stiffness: flexible without cable end<br>Control circuit: screw clamp terminals 2 1...2.5 mm <sup>2</sup> - cable stiffness: flexible without cable end<br>Control circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: flexible with cable end<br>Control circuit: screw clamp terminals 2 1...4 mm <sup>2</sup> - cable stiffness: flexible with cable end<br>Power circuit: connector 1 2.5...35 mm <sup>2</sup> - cable stiffness: solid with cable end<br>Power circuit: connector 2 2.5...35 mm <sup>2</sup> - cable stiffness: solid with cable end<br>Power circuit: connector 1 2.5...35 mm <sup>2</sup> - cable stiffness: flexible without cable end<br>Power circuit: connector 2 2.5...25 mm <sup>2</sup> - cable stiffness: flexible without cable end<br>Power circuit: connector 1 2.5...35 mm <sup>2</sup> - cable stiffness: flexible with cable end<br>Power circuit: connector 2 2.5...35 mm <sup>2</sup> - cable stiffness: flexible with cable end |
| <b>Tightening torque</b>                      | 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   |
| <b>Auxiliary contact composition</b>          | 1 NO + 1 NC  |

|                                  |  |
|----------------------------------|--|
| <b>Auxiliary contacts type</b>   | type mirror contact 1 NC conforming to IEC 60947-4-1<br>type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1 |
| <b>Minimum switching voltage</b> | 17 V for control circuit   |
| <b>Minimum switching current</b> | 5 mA for control circuit   |
| <b>Insulation resistance</b>     | > 10 MOhm for control circuit  |
| <b>Non-overlap time</b>          | 1.5 ms on de-energisation between NC and NO contacts<br>1.5 ms on energisation between NC and NO contacts                |
| <b>Mounting support</b>          | Plate<br>Rail  |

## Environment

|  |  |
|--|--|
| <b>Standards</b>   | UL 60947-4-1<br>EN 60947-4-1<br>EN 60947-5-1<br>IEC 60947-5-1<br>CSA C22.2 No 14<br>IEC 60947-4-1  |
| <b>Product certifications</b>                                | GOST<br>LROS (pending)<br>UL<br>CCC<br>RINA<br>CSA<br>BV<br>GL<br>DNV<br>UKCA  |
| <b>IP degree of protection</b>                               | IP2X conforming to IEC 60529<br>IP2X conforming to VDE 0106  |
| <b>Climatic withstand</b>                                    | conforming to IACS E10 exposure to damp heat   |
| <b>Permissible ambient air temperature around the device</b> | -5...60 °C<br>-40...70 °C at U <sub>c</sub>  |
| <b>Operating altitude</b>                                    | 3000 m without derating  |
| <b>Fire resistance</b>                                       | 850 °C conforming to IEC 60695-2-1   |
| <b>Flame retardance</b>                                      | V1 conforming to UL 94   |
| <b>Mechanical robustness</b>                                 | Shocks contactor opened (10 Gn for 11 ms)<br>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) |
| <b>Height</b>  | 122 mm   |
| <b>Width</b>   | 55 mm  |
| <b>Depth</b>   | 119 mm   |
| <b>Net weight</b>  | 1.4 kg   |

## Packing Units

|                                     |           |
|-------------------------------------|-----------|
| <b>Unit Type of Package 1</b>       | PCE       |
| <b>Number of Units in Package 1</b> | 1         |
| <b>Package 1 Height</b>             | 14.000 cm |
| <b>Package 1 Width</b>              | 13.200 cm |
| <b>Package 1 Length</b>             | 9.500 cm  |
| <b>Package 1 Weight</b>             | 1.446 kg  |
| <b>Unit Type of Package 2</b>       | S02       |

|                                     |            |
|-------------------------------------|------------|
| <b>Number of Units in Package 2</b> | 5          |
| <b>Package 2 Height</b>             | 15.000 cm  |
| <b>Package 2 Width</b>              | 30.000 cm  |
| <b>Package 2 Length</b>             | 40.000 cm  |
| <b>Package 2 Weight</b>             | 7.482 kg   |
| <b>Unit Type of Package 3</b>       | P06        |
| <b>Number of Units in Package 3</b> | 80         |
| <b>Package 3 Height</b>             | 75.000 cm  |
| <b>Package 3 Width</b>              | 60.000 cm  |
| <b>Package 3 Length</b>             | 80.000 cm  |
| <b>Package 3 Weight</b>             | 131.400 kg |

## Contractual warranty

|                             |    |
|-----------------------------|----|
| <b>Warranty (in months)</b> | 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                       | 58 kg CO2 eq.                                 |
| Environmental Disclosure                               | <a href="#">Product Environmental Profile</a> |
| Carbon footprint of the manufacturing phase [A1 to A3] | 9 kg CO2 eq.                                  |
| Carbon footprint of the distribution phase [A4]        | 0.2 kg CO2 eq.                                |
| Carbon footprint of the installation phase [A5]        | 0.3 kg CO2 eq.                                |
| Carbon footprint of the use phase [B2, B3, B4, B6]     | 46 kg CO2 eq.                                 |
| Carbon footprint of the end-of-life phase [C1 to C4]   | 3 kg CO2 eq.                                  |

## Use Better



### Materials and Substances

|  |                                   |
|--|-----------------------------------|
| Packaging made with recycled cardboard | Yes                               |
| Packaging without single use plastic   | Yes                               |
| <a href="#">EU RoHS Directive</a>      | Compliant                         |
| REACH Regulation                       | <a href="#">REACH Declaration</a> |
| PVC free                               | Yes                               |

## Use Longer



### Lifetime extension

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

## Use Again



### Repack and remanufacture

|                                 |   |
|---------------------------------|---|
| Recyclability potential, in %   | 76  |
| End of life manual availability | No need of specific recycling operations  |
| 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 |

Offer Marketing Illustration

Product benefits / Features

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Offer Marketing Illustration

Product benefits / Features

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### TeSys Deca Contactors

#### Technical Benefits



- Deca green delivers a consistent low consumption range of contactors from 9 A to 80 A.
- Covers control voltage from 24 to 250 V, with same coils for AC and DC.
- Designed to meet the requirements of industrial and HVAC applications
- With IEC60335-1 compliance, improved fire resistance, and dust-proof auxiliaries
- Suitable for safety applications thanks to mechanically linked contacts and mirror contacts
- Outstanding breaking/making capacity up to 20 In with PLC direct connection

Offer Marketing Illustration

Product benefits / Features

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## TeSys Deca Contactors



### Reliable

Multi-standard solutions, high reliability, long mechanical and electrical durability for different sizes, and the most complete accessories.



### Energy efficiency

These electronic-coil contactors require up to 80 % less energy than electro-mechanical contactors.



### Universal

Multi standards certified (IEC, UL, CSA, CCC, EAC, Marine), Green Premium compliant (RoHS/REACH).



Technical Illustration

Assembly's dimensions

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