

# Product datasheet

Specifications



## TeSys Deca reversing contactor, 3P, AC-3 $\leq 440\text{V}$ 115 A, 230 V AC 50/60 Hz coil, ring-lug terminals

LC2D1156P7

⚠ Discontinued on: 10 Oct 2020

⚠ Discontinued

### Main

|   |   |
|---|---|
| Range                                       | TeSys   |
| Product name                                | TeSys Deca  |
| Product or component type                   | Reversing contactor   |
| Device short name                           | LC2D  |
| Contactor application                       | Motor control<br>Resistive load   |
| Utilisation category                        | AC-3<br>AC-1  |
| Device presentation                         | Preassembled with reversing power busbar  |
| Poles description                           | 3P  |
| power pole contact composition              | 3 NO  |
| [Ue] rated operational voltage              | Power circuit: $\leq 1000\text{ V AC } 25\text{...}400\text{ Hz}$<br>Power circuit: $\leq 300\text{ V DC}$  |
| [Ie] rated operational current              | 200 A (at $\leq 60\text{ }^\circ\text{C}$ ) at $\leq 440\text{ V AC AC-1}$ for power circuit<br>115 A (at $\leq 60\text{ }^\circ\text{C}$ ) at $\leq 440\text{ V AC AC-3}$ for power circuit              |
| Motor power kW                              | 30 kW at 220...230 V AC 50 Hz<br>55 kW at 380...400 V AC 50 Hz<br>59 kW at 415...440 V AC 50 Hz<br>75 kW at 500 V AC 50 Hz<br>80 kW at 660...690 V AC 50 Hz<br>65 kW at 1000 V AC 50 Hz                   |
| Motor power hp                              | 30 hp at 200/208 V AC 60 Hz for 3 phases motors<br>40 hp at 230/240 V AC 60 Hz for 3 phases motors<br>75 hp at 460/480 V AC 60 Hz for 3 phases motors<br>100 hp at 575/600 V AC 60 Hz for 3 phases motors |
| Control circuit type                        | AC at 50/60 Hz  |
| [Uc] control circuit voltage                | 230 V AC 50/60 Hz   |
| Auxiliary contact composition               | 1 NO + 1 NC   |
| [Uimp] rated impulse withstand voltage      | 8 kV conforming to IEC 60947  |
| Overtoltage category                        | III   |
| [Ith] conventional free air thermal current | 200 A (at $60\text{ }^\circ\text{C}$ ) 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>1260 A at 440 V for power circuit conforming to IEC 60947                   |
| Rated breaking capacity                     | 1100 A at 440 V for power circuit conforming to IEC 60947   |

|   |  |
|---|--|
| <b>[Icw] rated short-time withstand current</b> | 250 A 40 °C - 10 min for power circuit<br>550 A 40 °C - 1 min for power circuit<br>950 A 40 °C - 10 s for power circuit<br>1100 A 40 °C - 1 s 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  |
| <b>Associated fuse rating</b>                   | 10 A gG for signalling circuit conforming to IEC 60947-5-1<br>250 A gG at ≤ 690 V coordination type 1 for power circuit<br>200 A gG at ≤ 690 V coordination type 2 for power circuit   |
| <b>Average impedance</b>                        | 0.6 mOhm - lth 200 A 50 Hz for power circuit   |
| <b>[Ui] rated insulation voltage</b>            | 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<br>Power circuit: 1000 V conforming to IEC 60947-4-1   |
| <b>Electrical durability</b>                    | 0.8 Mcycles 200 A AC-1 at Ue ≤ 440 V<br>0.95 Mcycles 115 A AC-3 at Ue ≤ 440 V  |
| <b>Power dissipation per pole</b>               | 24 W AC-1<br>7.9 W AC-3  |
| <b>Front cover</b>                              | With   |
| <b>Interlocking type</b>                        | Electrical<br>Mechanical   |
| <b>Mounting support</b>                         | Rail<br>Plate  |
| <b>Standards</b>                                | CSA C22.2 No 14<br>EN 60947-4-1<br>EN 60947-5-1<br>IEC 60947-4-1<br>IEC 60947-5-1<br>UL 508  |
| <b>Product certifications</b>                   | BV<br>CCC<br>CSA<br>DNV<br>GL<br>RINA<br>UL<br>EAC   |
| <b>Connections - terminals</b>                  | Control circuit: lugs-ring terminals (external diameter: 8 mm)<br>Power circuit: lugs-ring terminals (external diameter: 25 mm)<br>Power circuit: bars 1 cable(s) - busbar cross section: 5 x 25 mm  |
| <b>Tightening torque</b>                        | 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: 12 N.m - on lugs-ring terminals hexagonal screw head 13 mm M8<br>Power circuit: 12 N.m - on bars hexagonal screw head 13 mm M8 |
| <b>Operating time</b>                           | 20...50 ms closing<br>6...20 ms opening  |
| <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>                    | 8000000 cycles   |
| <b>Maximum operating rate</b>                   | 2400 cyc/h 60 °C   |

## Complementary

|                                       |  |
|---------------------------------------|--|
| <b>Coil technology</b>                | Built-in bidirectional peak limiting diode suppressor  |
| <b>Control circuit voltage limits</b> | 0.3...0.5 Uc (-40...70 °C):drop-out AC 50/60 Hz<br>0.8...1.15 Uc (-40...55 °C):operational AC 50/60 Hz |

|  |  |
|--|--|
| <b>Inrush power in VA</b>              | 280...350 VA 60 Hz cos phi 0.8 (at 20 °C)<br>280...350 VA 50 Hz cos phi 0.8 (at 20 °C)                                   |
| <b>Hold-in power consumption in VA</b> | 2...18 VA (at 20 °C) cos phi 0.3 60 Hz<br>2...18 VA (at 20 °C) cos phi 0.3 50 Hz   |
| <b>Heat dissipation</b>                | 3...8 W at 50/60 Hz  |
| <b>Auxiliary contacts type</b>         | 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 |
| <b>Signalling circuit frequency</b>    | 25...400 Hz  |
| <b>Minimum switching current</b>       | 5 mA for signalling circuit  |
| <b>Minimum switching voltage</b>       | 17 V for signalling circuit  |
| <b>Non-overlap time</b>                | 1.5 ms on de-energisation between NC and NO contact<br>1.5 ms on energisation between NC and NO contact                  |
| <b>Insulation resistance</b>           | > 10 MOhm for signalling circuit   |

## Environment

|  |   |
|--|---|
| <b>IP degree of protection</b>               | IP20 front face conforming to IEC 60529   |
| <b>Climatic withstand</b>                    | conforming to IACS E10  |
| <b>Protective treatment</b>                  | TH conforming to IEC 60068-2-30   |
| <b>Pollution degree</b>                      | 3   |
| <b>Ambient air temperature for operation</b> | -40...60 °C<br>60...70 °C with derating   |
| <b>Ambient air temperature for storage</b>   | -60...80 °C   |
| <b>Operating altitude</b>                    | 0...3000 m  |
| <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>                 | Vibrations contactor open: 2 Gn, 5...300 Hz<br>Vibrations contactor closed: 4 Gn, 5...300 Hz<br>Shocks contactor closed: 15 Gn for 11 ms<br>Shocks contactor open: 6 Gn for 11 ms |
| <b>Height</b>                                | 158 mm  |
| <b>Width</b>                                 | 266 mm  |
| <b>Depth</b>                                 | 148 mm  |
| <b>Product weight</b>                        | 6.35 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>             | 23 cm   |
| <b>Package 1 Width</b>              | 31.5 cm |
| <b>Package 1 Length</b>             | 37 cm   |
| <b>Package 1 Weight</b>             | 6.5 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 >](#)

### Use Better



#### Materials and Substances

EU RoHS Directive

[Compliant](#)

PVC free

Yes

### Use Longer



#### Lifetime extension

Repair

No

### Use Again



#### Repack and remanufacture

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