

# Product data sheet

Specifications



## TeSys Deca changeover contactor - 4P(4 NO) - AC-1 - $\leq 440$ V 20 A - 220 V AC coil

LC2DT20M7V

⚠ Discontinued on: Jul 24, 2022

⚠ Discontinued

### Main

|   |  |
|---|--|
| Range                                       | TeSys  |
| Product name                                | TeSys Deca   |
| Product or component type                   | Changeover contactor   |
| Device short name                           | LC2D   |
| Contactor application                       | Resistive load   |
| Utilisation category                        | AC-1<br>AC-3<br>AC-3e<br>AC-4  |
| Device presentation                         | Preassembled, with prewired power connections  |
| Poles description                           | 4P   |
| power pole contact composition              | 4 NO   |
| [Ue] rated operational voltage              | Power circuit: $\leq 690$ V AC 25...400 Hz<br>Power circuit: $\leq 300$ V DC   |
| [Ie] rated operational current              | 20 A (at $\leq 60$ °C) at $\leq 440$ V AC AC-1 for power circuit   |
| Control circuit type                        | AC at 50/60 Hz   |
| [Uc] control circuit voltage                | 220 V AC 50/60 Hz  |
| Auxiliary contact composition               | 1 NO + 1 NC  |
| [Uimp] rated impulse withstand voltage      | 6 kV conforming to IEC 60947   |
| Overtoltage category                        | III  |
| [Ith] conventional free air thermal current | 10 A (at $60$ °C) for signalling circuit<br>20 A (at $60$ °C) for power circuit  |
| Irms rated making capacity                  | 250 A at 440 V for power circuit conforming to IEC 60947<br>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   |
| Rated breaking capacity                     | 250 A at 440 V for power circuit conforming to IEC 60947   |
| [Icw] rated short-time withstand current    | 30 A 40 °C - 10 min for power circuit<br>61 A 40 °C - 1 min for power circuit<br>105 A 40 °C - 10 s for power circuit<br>210 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 |
| Associated fuse rating                      | 25 A gG at $\leq 690$ V coordination type 1 for power circuit<br>20 A gG at $\leq 690$ V coordination type 2 for power circuit<br>10 A gG for signalling circuit conforming to IEC 60947-5-1   |
| Average impedance                           | 2.5 mOhm - Ith 20 A 50 Hz for power circuit  |

|                                      |  |
|--------------------------------------|--|
| <b>[Ui] rated insulation voltage</b> | Power circuit: 690 V conforming to IEC 60947-4-1<br>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  |
| <b>Power dissipation per pole</b>    | 1.56 W AC-1  |
| <b>Front cover</b>                   | With   |
| <b>Interlocking type</b>             | Electrical and mechanical  |
| <b>Mounting support</b>              | Plate<br>Rail  |
| <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>        | DNV<br>UL<br>BV<br>GL<br>LROS (Lloyds register of shipping)<br>CCC<br>RINA<br>GOST<br>CSA  |
| <b>Connections - terminals</b>       | Power circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> flexible without cable end<br>Power circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> flexible without cable end<br>Power circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> flexible with cable end<br>Power circuit: screw clamp terminals 2 cable(s) 1...2.5 mm <sup>2</sup> flexible with cable end<br>Power circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> solid<br>Power circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> solid<br>Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> flexible without cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> flexible without cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> flexible with cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm <sup>2</sup> flexible with cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> solid<br>Control circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> solid |
| <b>Tightening torque</b>             | Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm<br>Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2<br>Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm<br>Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2   |
| <b>Operating time</b>                | 12...22 ms closing<br>4...19 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>         | 15 Mcycles   |
| <b>Maximum operating rate</b>        | 3600 cyc/h 60 °C   |

## Complementary

|  |   |
|--|---|
| <b>Coil technology</b>                 | Without built-in suppressor module  |
| <b>Control circuit voltage limits</b>  | 0.3...0.6 Uc (-40...70 °C):drop-out AC 50/60 Hz<br>0.8...1.1 Uc (-40...60 °C):operational AC 50 Hz<br>0.85...1.1 Uc (-40...60 °C):operational AC 60 Hz<br>1...1.1 Uc (60...70 °C):operational AC 50/60 Hz |
| <b>Inrush power in VA</b>              | 70 VA 60 Hz cos phi 0.75 (at 20 °C)<br>70 VA 50 Hz cos phi 0.75 (at 20 °C)  |
| <b>Hold-in power consumption in VA</b> | 7.5 VA 60 Hz cos phi 0.3 (at 20 °C)<br>7 VA 50 Hz cos phi 0.3 (at 20 °C)  |
| <b>Heat dissipation</b>                | 2...3 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<br>conforming to IEC 60947-1 Annex Q category D   |
| <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 open: 10 Gn for 11 ms<br>Shocks contactor closed: 15 Gn for 11 ms |
| <b>Height</b>                                | 85 mm  |
| <b>Width</b>                                 | 90 mm  |
| <b>Depth</b>                                 | 90 mm  |
| <b>Net weight</b>                            | 0.73 kg  |

## Packing Units

|                                     |     |
|-------------------------------------|-----|
| <b>Unit Type of Package 1</b>       | PCE |
| <b>Number of Units in Package 1</b> | 1   |

## 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

WEEE Label



The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins