

# Product data sheet

Specifications



Reversing Contactor, TeSys Deca,  
3P(3NO), AC-3, <=440V, 9A, 24V  
AC 50/60Hz coil, with mechanical  
interlocking, screw clamp terminals

LC2D09B7

## Main

|                                             |                                                                                                                                                                                                                                                                                                        |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                       | TeSys<br>TeSys Deca                                                                                                                                                                                                                                                                                    |
| Product name                                | TeSys D<br>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<br>AC-3e                                                                                                                                                                                                                                                                                  |
| Device presentation                         | Preassembled with reversing power busbar                                                                                                                                                                                                                                                               |
| Poles description                           | 3P                                                                                                                                                                                                                                                                                                     |
| power pole contact composition              | 3 NO                                                                                                                                                                                                                                                                                                   |
| [Ue] rated operational voltage              | Power circuit: <= 690 V AC 25...400 Hz<br>Power circuit: <= 300 V DC                                                                                                                                                                                                                                   |
| [Ie] rated operational current              | 9 A (at <60 °C) at <= 440 V AC AC-3 for power circuit<br>25 A (at <60 °C) at <= 440 V AC AC-1 for power circuit                                                                                                                                                                                        |
| Motor power kW                              | 2.2 kW at 220...230 V AC 50...60 Hz<br>4 kW at 380...400 V AC 50...60 Hz<br>4 kW at 415 V AC 50...60 Hz<br>4 kW at 440 V AC 50...60 Hz<br>5.5 kW at 500 V AC 50...60 Hz<br>5.5 kW at 660...690 V AC 50...60 Hz                                                                                         |
| motor power HP (UL / CSA)                   | 0.5 hp at 115 V AC 60 Hz for 1 phase motors<br>1 hp at 230/240 V AC 60 Hz for 1 phase motors<br>2 hp at 200/208 V AC 60 Hz for 3 phases motors<br>2 hp at 230/240 V AC 60 Hz for 3 phases motors<br>5 hp at 460/480 V AC 60 Hz for 3 phases motors<br>7.5 hp at 575/600 V AC 60 Hz for 3 phases motors |
| Control circuit type                        | AC at 50/60 Hz                                                                                                                                                                                                                                                                                         |
| [Uc] control circuit voltage                | 24 V AC 50/60 Hz                                                                                                                                                                                                                                                                                       |
| Auxiliary contact composition               | 1 NO + 1 NC                                                                                                                                                                                                                                                                                            |
| [Uimp] rated impulse withstand voltage      | 6 kV conforming to IEC 60947                                                                                                                                                                                                                                                                           |
| Overvoltage category                        | III                                                                                                                                                                                                                                                                                                    |
| [Ith] conventional free air thermal current | 10 A (at 60 °C) for signalling circuit<br>25 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                                                                                                                                                                                                                                               |

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

|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>[Icw] rated short-time withstand current</b> | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Associated fuse rating</b>                   | 25 A gG at <= 690 V coordination type 1 for power circuit<br>20 A gG at <= 690 V coordination type 2 for power circuit<br>10 A gG for signalling circuit conforming to IEC 60947-5-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Average impedance</b>                        | 2.5 mOhm - lth 25 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>Electrical durability</b>                    | 0.6 Mcycles 25 A AC-1 at Ue <= 440 V<br>2 Mcycles 9 A AC-3 at Ue <= 440 V<br>2 Mcycles 9 A AC-3e at Ue <= 440 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Power dissipation per pole</b>               | 0.2 W AC-3<br>1.56 W AC-1<br>0.2 W AC-3e                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Front cover</b>                              | With                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Interlocking type</b>                        | 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 60335-2-40:Annex JJ<br>IEC 60335-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Product certifications</b>                   | DNV<br>CSA<br>CCC<br>UL<br>GL<br>LROS (Lloyds register of shipping)<br>BV<br>RINA<br>GOST<br>UKCA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Connections - terminals</b>                  | Power circuit: screw clamp terminals 1 cable(s) 1...4 mm²flexible without cable end<br>Power circuit: screw clamp terminals 2 cable(s) 1...4 mm²flexible without cable end<br>Power circuit: screw clamp terminals 1 cable(s) 1...4 mm²flexible with cable end<br>Power circuit: screw clamp terminals 2 cable(s) 1...2.5 mm²flexible with cable end<br>Power circuit: screw clamp terminals 1 cable(s) 1...4 mm²solid<br>Power circuit: screw clamp terminals 2 cable(s) 1...4 mm²solid<br>Control circuit: screw clamp terminals 1 cable(s) 1...4 mm²flexible without cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...4 mm²flexible without cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1...4 mm²flexible with cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm²flexible with cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1...4 mm²solid<br>Control circuit: screw clamp terminals 2 cable(s) 1...4 mm²solid |
| <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<br>Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2<br>Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver pozidriv No 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Operating time</b>                           | 12...22 ms closing<br>4...19 ms opening                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

|                          |                                                                                                                                                                      |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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    | 15 Mcycles                                                                                                                                                           |
| Maximum operating rate   | 3600 cyc/h 60 °C                                                                                                                                                     |

## Complementary

|                                 |                                                                                                                                                                                                           |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Coil technology                 | Without built-in suppressor module                                                                                                                                                                        |
| Control circuit voltage limits  | 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 |
| Inrush power in VA              | 70 VA 60 Hz cos phi 0.75 (at 20 °C)<br>70 VA 50 Hz cos phi 0.75 (at 20 °C)                                                                                                                                |
| Hold-in power consumption in VA | 7.5 VA 60 Hz cos phi 0.3 (at 20 °C)<br>7 VA 50 Hz cos phi 0.3 (at 20 °C)                                                                                                                                  |
| Heat dissipation                | 2...3 W at 50/60 Hz                                                                                                                                                                                       |
| 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                                                                                  |
| Signalling circuit frequency    | 25...400 Hz                                                                                                                                                                                               |
| Minimum switching current       | 5 mA for signalling circuit                                                                                                                                                                               |
| Minimum switching voltage       | 17 V 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                                                                                                   |
| Insulation resistance           | > 10 MOhm for signalling circuit                                                                                                                                                                          |

## Environment

|                                       |                                                                                                                                                                                    |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IP degree of protection               | IP20 front face conforming to IEC 60529                                                                                                                                            |
| Climatic withstand                    | conforming to IACS E10<br>conforming to IEC 60947-1 Annex Q category D                                                                                                             |
| Protective treatment                  | TH conforming to IEC 60068-2-30                                                                                                                                                    |
| Pollution degree                      | 3                                                                                                                                                                                  |
| Ambient air temperature for operation | -40...60 °C<br>60...70 °C with derating                                                                                                                                            |
| Ambient air temperature for storage   | -60...80 °C                                                                                                                                                                        |
| 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>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 |
| Height                                | 77 mm                                                                                                                                                                              |
| Width                                 | 90 mm                                                                                                                                                                              |
| Depth                                 | 86 mm                                                                                                                                                                              |
| Product weight                        | 0.687 kg                                                                                                                                                                           |

## Packing Units

|                              |           |
|------------------------------|-----------|
| Unit Type of Package 1       | PCE       |
| Number of Units in Package 1 | 1         |
| Package 1 Height             | 9.400 cm  |
| Package 1 Width              | 11.400 cm |
| Package 1 Length             | 13.800 cm |
| Package 1 Weight             | 811.000 g |
| Unit Type of Package 2       | S02       |
| Number of Units in Package 2 | 6         |
| Package 2 Height             | 15.000 cm |
| Package 2 Width              | 30.000 cm |
| Package 2 Length             | 40.000 cm |
| Package 2 Weight             | 5.220 kg  |

## Contractual warranty

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

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 | 37                                            |
| Environmental Disclosure         | <a href="#">Product Environmental Profile</a> |

Use Better

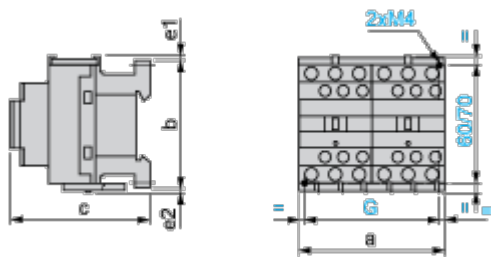
| Materials and Substances               |                                                                                                                                                                                                                                                           |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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>                                                                                                                                                                                                                         |
| California proposition 65              | WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |
| PVC free                               | Yes                                                                                                                                                                                                                                                       |

Use Again

| Repack and remanufacture        |                                                                                                                                                                                                                 |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| End of life manual availability | <a href="#">End of Life Information</a>                                                                                                                                                                         |
| 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 |

Dimensions Drawings

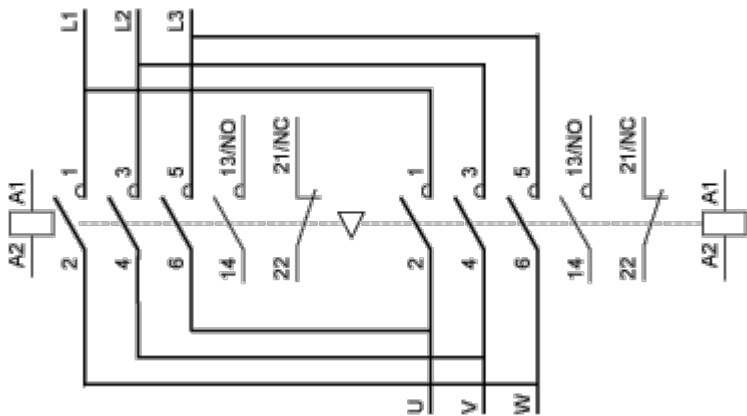
Dimensions



|                                              |    |    |                  |    |     |    |
|----------------------------------------------|----|----|------------------|----|-----|----|
| LC2 or 2 x LC1                               | a  | b  | c <sup>(1)</sup> | e1 | e2  | G  |
| D09 to D18 (AC)                              | 90 | 77 | 86               | 4  | 1.5 | 80 |
| D093 to D123 (AC)                            | 90 | 99 | 86               | –  | –   | 80 |
| D09 to D18 (DC)                              | 90 | 77 | 95               | 4  | 1.5 | 80 |
| D093 to D123 (DC)                            | 90 | 99 | 95               | –  | –   | 80 |
| D25 to D38 (AC)                              | 90 | 85 | 92               | 9  | 5   | 80 |
| D183 to D383 (AC)                            | 90 | 99 | 92               | –  | –   | 80 |
| D25 to D32 (DC)                              | 90 | 85 | 101              | 9  | 5   | 80 |
| D183 to D383 (DC)                            | 90 | 99 | 101              | –  | –   | 80 |
| e1 and e2: including cabling.                |    |    |                  |    |     |    |
| (1) With safety cover, without add-on block. |    |    |                  |    |     |    |

Connections and Schema

Wiring



Technical Illustration

Assembly's dimensions

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