

# Product datasheet

Specifications



## TeSys D contactor - 3P(3 NO) - AC-3 - $\leq 440$ V 25 A - 220 V AC coil

LC1D25M7

### Main

|                                |                                                                                                                                                                                                           |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range of product               | TeSys Deca                                                                                                                                                                                                |
| Product or component type      | Contacteur                                                                                                                                                                                                |
| Device short name              | LC1D                                                                                                                                                                                                      |
| contactor application          | Motor control<br>Resistive load                                                                                                                                                                           |
| Utilisation category           | AC-1<br>AC-3<br>AC-4<br>AC-3e                                                                                                                                                                             |
| Poles description              | 3P                                                                                                                                                                                                        |
| [Ue] rated operational voltage | Power circuit: $\leq 690$ V AC 25...400 Hz<br>Power circuit: $\leq 300$ V DC                                                                                                                              |
| [Ie] rated operational current | 25 A (at $\leq 60$ °C) at $\leq 440$ V AC AC-3 for power circuit<br>40 A (at $\leq 60$ °C) at $\leq 440$ V AC AC-1 for power circuit<br>25 A (at $\leq 60$ °C) at $\leq 440$ V AC AC-3e for power circuit |
| [Uc] control circuit voltage   | 220 V AC 50/60 Hz                                                                                                                                                                                         |

### Complementary

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Motor power kW                              | 5.5 kW at 220...230 V AC 50/60 Hz (AC-3)<br>11 kW at 380...400 V AC 50/60 Hz (AC-3)<br>11 kW at 415...440 V AC 50/60 Hz (AC-3)<br>15 kW at 500 V AC 50/60 Hz (AC-3)<br>15 kW at 660...690 V AC 50/60 Hz (AC-3)<br>5.5 kW at 400 V AC 50/60 Hz (AC-4)<br>5.5 kW at 220...230 V AC 50/60 Hz (AC-3e)<br>11 kW at 380...400 V AC 50/60 Hz (AC-3e)<br>11 kW at 415...440 V AC 50/60 Hz (AC-3e)<br>15 kW at 500 V AC 50/60 Hz (AC-3e)<br>15 kW at 660...690 V AC 50/60 Hz (AC-3e) |
| Motor power hp                              | 3 hp at 230/240 V AC 50/60 Hz for 1 phase motors<br>2 hp at 115 V AC 50/60 Hz for 1 phase motors<br>7.5 hp at 230/240 V AC 50/60 Hz for 3 phases motors<br>15 hp at 460/480 V AC 50/60 Hz for 3 phases motors<br>20 hp at 575/600 V AC 50/60 Hz for 3 phases motors<br>7.5 hp at 200/208 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>40 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>450 A at 440 V for power circuit conforming to IEC 60947                                                                                                                                                                                                                                                                                      |
| Rated breaking capacity                     | 450 A at 440 V for power circuit conforming to IEC 60947                                                                                                                                                                                                                                                                                                                                                                                                                    |

|                                                 |                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>[Icw] rated short-time withstand current</b> | 240 A 40 °C - 10 s for power circuit<br>380 A 40 °C - 1 s for power circuit<br>50 A 40 °C - 10 min for power circuit<br>120 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 |
| <b>Associated fuse rating</b>                   | 10 A gG for signalling circuit conforming to IEC 60947-5-1<br>63 A gG at <= 690 V coordination type 1 for power circuit<br>40 A gG at <= 690 V coordination type 2 for power circuit                                                                                                  |
| <b>Average impedance</b>                        | 2 mOhm - lth 40 A 50 Hz for power circuit                                                                                                                                                                                                                                             |
| <b>Power dissipation per pole</b>               | 3.2 W AC-1<br>1.25 W AC-3<br>1.25 W AC-3e                                                                                                                                                                                                                                             |
| <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>Overvoltage category</b>                     | III                                                                                                                                                                                                                                                                                   |
| <b>Pollution degree</b>                         | 3                                                                                                                                                                                                                                                                                     |
| <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>                    | 15 Mcycles                                                                                                                                                                                                                                                                            |
| <b>Electrical durability</b>                    | 1.65 Mcycles 25 A AC-3 at Ue <= 440 V<br>1.4 Mcycles 40 A AC-1 at Ue <= 440 V<br>1.65 Mcycles 25 A AC-3e at Ue <= 440 V                                                                                                                                                               |
| <b>Control circuit type</b>                     | AC at 50/60 Hz standard                                                                                                                                                                                                                                                               |
| <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>Operating time</b>                           | 12...22 ms closing<br>4...19 ms opening                                                                                                                                                                                                                                               |
| <b>Maximum operating rate</b>                   | 3600 cyc/h 60 °C                                                                                                                                                                                                                                                                      |
| <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: flexible without cable end<br>Control circuit: screw clamp terminals 2 1...4 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...2.5 mm <sup>2</sup> - cable stiffness: flexible with cable end<br>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>Power circuit: screw clamp terminals 1 2.5...10 mm <sup>2</sup> - cable stiffness: flexible without cable end<br>Power circuit: screw clamp terminals 2 2.5...10 mm <sup>2</sup> - cable stiffness: flexible without cable end<br>Power circuit: screw clamp terminals 1 1...10 mm <sup>2</sup> - cable stiffness: flexible with cable end<br>Power circuit: screw clamp terminals 2 1.5...6 mm <sup>2</sup> - cable stiffness: flexible with cable end<br>Power circuit: screw clamp terminals 1 1.5...10 mm <sup>2</sup> - cable stiffness: solid without cable end<br>Power circuit: screw clamp terminals 2 2.5...10 mm <sup>2</sup> - cable stiffness: solid without cable end |
| <b>Tightening torque</b>             | 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>Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm<br>Power circuit: 2.5 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>Auxiliary contact composition</b> | 1 NO + 1 NC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <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 voltage</b>     | 17 V for signalling circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Minimum switching current</b>     | 5 mA for signalling circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Insulation resistance</b>         | > 10 MOhm 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>Mounting support</b>              | Plate<br>Rail                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

## Environment

|                                |                                                                                                                                                                                                             |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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 60947-4-1<br>IEC 60335-1:Clause 30.2<br>IEC 60335-2-40:Annex JJ<br>UL 60335-2-40:Annex JJ<br>CSA C22.2 No 60947-4-1 |
| <b>Product certifications</b>  | UL<br>CCC<br>CSA<br>Marine<br>UKCA<br>EAC<br>CB Scheme                                                                                                                                                      |
| <b>IP degree of protection</b> | IP20 front face conforming to IEC 60529                                                                                                                                                                     |
| <b>Protective treatment</b>    | TH conforming to IEC 60068-2-30                                                                                                                                                                             |
| <b>Climatic withstand</b>      | conforming to IACS E10 exposure to damp heat<br>conforming to IEC 60947-1 Annex Q category D exposure to damp heat                                                                                          |

|                                                              |                                                                                                                                                                                       |
|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Permissible ambient air temperature around the device</b> | -40...60 °C<br>60...70 °C with derating                                                                                                                                               |
| <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 (8 Gn for 11 ms) |
| <b>Height</b>                                                | 85 mm                                                                                                                                                                                 |
| <b>Width</b>                                                 | 45 mm                                                                                                                                                                                 |
| <b>Depth</b>                                                 | 92 mm                                                                                                                                                                                 |
| <b>Net weight</b>                                            | 0.37 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>             | 5.000 cm   |
| <b>Package 1 Width</b>              | 9.300 cm   |
| <b>Package 1 Length</b>             | 11.400 cm  |
| <b>Package 1 Weight</b>             | 413.000 g  |
| <b>Unit Type of Package 2</b>       | S02        |
| <b>Number of Units in Package 2</b> | 20         |
| <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>             | 8.440 kg   |
| <b>Unit Type of Package 3</b>       | P06        |
| <b>Number of Units in Package 3</b> | 320        |
| <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>             | 143.000 kg |

## Contractual warranty

|                 |           |
|-----------------|-----------|
| <b>Warranty</b> | 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<sub>2</sub> 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 >](#)





Sustainable Packaging Transparency RoHS/REACH

## Resource performance

 Sustainable Packaging

## Well-being performance

 Reach Free Of Svhc

 Rohs Exemption Information Yes

 Pvc Free

## Certifications & Standards

**Reach Regulation** [REACH Declaration](#)

**Eu Rohs Directive** Compliant  
[EU RoHS Declaration](#)

**China Rohs Regulation** [China RoHS declaration](#)  
Pro-active China RoHS declaration (out of China RoHS legal scope)

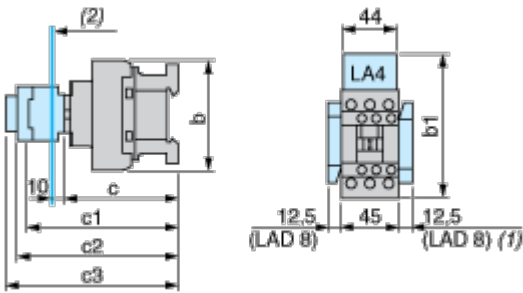
**Environmental Disclosure** [Product Environmental Profile](#)

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

**Circularity Profile** [End of Life Information](#)

Dimensions Drawings

Dimensions



- (1) Including LAD 4BB
- (2) Minimum electrical clearance

| LC1        |                                    | D25...D38 (3-pole) |
|------------|------------------------------------|--------------------|
| <b>b</b>   | without add-on blocks              | 85                 |
| <b>b1</b>  | with LAD 4BB                       | 98                 |
|            | with LA4 D•2                       | 114 <sup>(1)</sup> |
|            | with LA4 DF, DT                    | 123 <sup>(1)</sup> |
|            | with LA4 DW, DL                    | 130 <sup>(1)</sup> |
| <b>c</b>   | without cover or add-on blocks     | 90                 |
|            | with cover, without add-on blocks  | 92                 |
| <b>c1</b>  | with LAD N or C (2 or 4 contacts)  | 123                |
| <b>c2</b>  | with LA6 DK10, LAD 6K10            | 135                |
| <b>c3</b>  | with LAD T, R, S                   | 143                |
|            | with LAD T, R, S and sealing cover | 147                |
| <b>(1)</b> | Including LAD 4BB.                 |                    |

Connections and Schema

Wiring

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Image of product / Alternate images

Alternative

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