



### Main

|  |   |
|--|---|
| Range                                  | TeSys   |
| Product name                           | TeSys D   |
| Product or component type              | Contactor   |
| Device short name                      | LC1D  |
| Contactor application                  | Motor control<br>Resistive load   |
| Utilisation category                   | AC-1<br>AC-3<br>AC-4  |
| Poles description                      | 3P  |
| Power pole contact composition         | 3 NO  |
| [Ue] rated operational voltage         | $\leq 300$ V DC for power circuit<br>$\leq 690$ V AC 25...400 Hz for power circuit  |
| [Ie] rated operational current         | 25 A ( $\leq 60$ °C) at $\leq 440$ V AC AC-1 for power circuit<br>9 A ( $\leq 60$ °C) at $\leq 440$ V AC AC-3 for power circuit   |
| Motor power kW                         | 2.2 kW at 400 V AC 50/60 Hz AC-4<br>2.2 kW at 220...230 V AC 50/60 Hz AC-3<br>4 kW at 380...400 V AC 50/60 Hz AC-3<br>5.5 kW at 500 V AC 50/60 Hz AC-3<br>5.5 kW at 660...690 V AC 50/60 Hz AC-3<br>4 kW at 415...440 V AC 50/60 Hz AC-3  |
| Motor power HP (UL / CSA)              | 0.33 hp at 115 V AC 50/60 Hz for 1 phase motors<br>1 hp at 230/240 V AC 50/60 Hz for 1 phase motors<br>2 hp at 200/208 V AC 50/60 Hz for 3 phases motors<br>2 hp at 230/240 V AC 50/60 Hz for 3 phases motors<br>5 hp at 460/480 V AC 50/60 Hz for 3 phases motors<br>7.5 hp at 575/600 V AC 50/60 Hz for 3 phases motors |
| Control circuit type                   | AC 50/60 Hz   |
| [Uc] control circuit voltage           | 110 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   |

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

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|--|--|
| [I <sub>th</sub> ] conventional free air thermal current | 25 A at ≤ 60 °C for power circuit<br>10 A at ≤ 60 °C for signalling circuit  |
| I <sub>rms</sub> 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   |
| [I <sub>cw</sub> ] rated short-time withstand current    | 105 A ≤ 40 °C 10 s power circuit<br>210 A ≤ 40 °C 1 s power circuit<br>30 A ≤ 40 °C 10 min power circuit<br>61 A ≤ 40 °C 1 min power circuit<br>100 A 1 s signalling circuit<br>120 A 500 ms signalling circuit<br>140 A 100 ms signalling circuit   |
| Associated fuse rating                                   | 20 A gG at ≤ 690 V coordination type 2 for power circuit<br>25 A gG at ≤ 690 V coordination type 1 for power circuit<br>10 A gG for signalling circuit conforming to IEC 60947-5-1   |
| Average impedance  | 2.5 mΩ at 50 Hz - I <sub>th</sub> 25 A for power circuit   |
| [U <sub>i</sub> ] rated insulation voltage               | 600 V for power circuit certifications CSA<br>600 V for power circuit certifications UL<br>690 V for power circuit conforming to IEC 60947-4-1<br>690 V for signalling circuit conforming to IEC 60947-1<br>600 V for signalling circuit certifications CSA<br>600 V for signalling circuit certifications UL  |
| Electrical durability                                    | 0.6 Mcycles 25 A AC-1 at U <sub>e</sub> ≤ 440 V<br>2 Mcycles 9 A AC-3 at U <sub>e</sub> ≤ 440 V  |
| Power dissipation per pole                               | 0.2 W AC-3<br>1.56 W AC-1  |
| Safety cover   | With   |
| Mounting support   | Plate<br>Rail  |
| Standards  | 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  |
| Product certifications                                   | BV<br>CCC<br>CSA<br>DNV<br>GL<br>GOST<br>LROS (Lloyds register of shipping)<br>RINA<br>UL  |
| Connections - terminals                                  | Control circuit : screw clamp terminals 2 cable(s) 1...2.5 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Power circuit : screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Control circuit : screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Control circuit : screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Control circuit : screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Control circuit : screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: solid - without cable end<br>Control circuit : screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: solid - without cable end<br>Power circuit : screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Power circuit : screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Power circuit : screw clamp terminals 2 cable(s) 1...2.5 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Power circuit : screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: solid - without cable end<br>Power circuit : screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: solid - without cable end |
| Tightening torque  | 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   |
| Operating time   | 4...19 ms opening<br>12...22 ms closing  |
| Safety reliability level                                 | B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1   |

B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1

|                       |                       |
|-----------------------|-----------------------|
| Mechanical durability | 15 Mcycles            |
| Operating rate        | 3600 cyc/h at ≤ 60 °C |

### Complementary

|                                 |  |
|---------------------------------|--|
| Coil technology                 | Without built-in suppressor module   |
| Control circuit voltage limits  | 0.3...0.6 Uc drop-out at 60 °C, AC 50/60 Hz<br>0.8...1.1 Uc operational at 60 °C, AC 50 Hz<br>0.85...1.1 Uc operational at 60 °C, AC 60 Hz |
| Inrush power in VA              | 70 VA at 20 °C (cos φ 0.75) 60 Hz<br>70 VA at 20 °C (cos φ 0.75) 50 Hz   |
| Hold-in power consumption in VA | 7.5 VA at 20 °C (cos φ 0.3) 60 Hz<br>7 VA at 20 °C (cos φ 0.3) 50 Hz   |
| 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 energisation between NC and NO contact<br>1.5 ms on de-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  |
| Protective treatment                                  | TH conforming to IEC 60068-2-30  |
| Pollution degree                                      | 3  |
| Ambient air temperature for operation                 | -5...60 °C   |
| Ambient air temperature for storage                   | -60...80 °C  |
| Permissible ambient air temperature around the device | -40...70 °C at Uc  |
| Operating altitude                                    | 3000 m without derating in temperature   |
| 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   | 45 mm  |
| Depth   | 86 mm  |
| Product weight  | 0.32 kg  |

### Offer Sustainability

|                                  |   |
|----------------------------------|---|
| Sustainable offer status         | Green Premium product   |
| RoHS (date code: YYWW)           | Compliant - since 0627 - Schneider Electric declaration of conformity<br><a href="#">Schneider Electric declaration of conformity</a> |
| REACH                            | Reference not containing SVHC above the threshold<br><a href="#">Reference not containing SVHC above the threshold</a>                |
| Product environmental profile    | Available<br><a href="#">Product Environmental Profile</a>  |
| Product end of life instructions | Available<br><a href="#">End of Life Information</a>  |

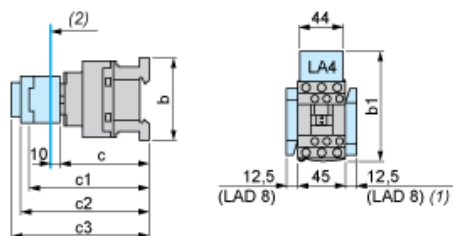
Contractual warranty

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

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Dimensions



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

| LC1 |                                    | D09...D18          | D093...D123        | D099...D129          |
|-----|------------------------------------|--------------------|--------------------|----------------------|
| b   | without add-on blocks              | 77                 | 99                 | 80                   |
| b1  | with LAD 4BB                       | 94                 | 107                | 95.5                 |
|     | with LA4 D•2                       | 110 <sup>(1)</sup> | 123 <sup>(1)</sup> | 111.5 <sup>(1)</sup> |
|     | with LA4 DF, DT                    | 119 <sup>(1)</sup> | 132 <sup>(1)</sup> | 120.5 <sup>(1)</sup> |
|     | with LA4 DW, DL                    | 126 <sup>(1)</sup> | 139 <sup>(1)</sup> | 127.5 <sup>(1)</sup> |
| c   | without cover or add-on blocks     | 84                 | 84                 | 84                   |
|     | with cover, without add-on blocks  | 86                 | 86                 | 86                   |
| c1  | with LAD N or C (2 or 4 contacts)  | 117                | 117                | 117                  |
| c2  | with LA6 DK10, LAD 6K10            | 129                | 129                | 129                  |
| c3  | with LAD T, R, S                   | 137                | 137                | 137                  |
|     | with LAD T, R, S and sealing cover | 141                | 141                | 141                  |
| (1) | Including LAD 4BB.                 |                    |                    |                      |

Wiring

