



Main

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|--|---|
| Range                                  | TeSys   |
| Product name                           | TeSys D   |
| Product or component type              | Contacteur  |
| Device short name                      | LC1D  |
| Contacteur 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         | 80 A ( $\leq 60$ °C) at $\leq 440$ V AC AC-1 for power circuit<br>65 A ( $\leq 60$ °C) at $\leq 440$ V AC AC-3 for power circuit  |
| Motor power kW                         | 11 kW at 400 V AC 50/60 Hz AC-4<br>30 kW at 380...400 V AC 50/60 Hz AC-3<br>37 kW at 500 V AC 50/60 Hz AC-3<br>37 kW at 660...690 V AC 50/60 Hz AC-3<br>18.5 kW at 220...230 V AC 50/60 Hz AC-3   |
| Motor power HP (UL / CSA)              | 40 hp at 460/480 V AC 50/60 Hz for 3 phases motors<br>5 hp at 115 V AC 50/60 Hz for 1 phase motors<br>10 hp at 230/240 V AC 50/60 Hz for 1 phase motors<br>20 hp at 200/208 V AC 50/60 Hz for 3 phases motors<br>20 hp at 230/240 V AC 50/60 Hz for 3 phases motors<br>50 hp at 575/600 V AC 50/60 Hz for 3 phases motors |
| Control circuit type                   | AC 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 | 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 | 80 A at ≤ 60 °C for power circuit<br>10 A at ≤ 60 °C for signalling circuit  |
| I <sub>rms</sub> rated making capacity                   | 1000 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                                  | 1000 A at 440 V for power circuit conforming to IEC 60947  |
| [I <sub>cw</sub> ] rated short-time withstand current    | 100 A 1 s signalling circuit<br>120 A 500 ms signalling circuit<br>140 A 100 ms signalling circuit<br>520 A ≤ 40 °C 10 s power circuit<br>900 A ≤ 40 °C 1 s power circuit<br>110 A ≤ 40 °C 10 min power circuit<br>260 A ≤ 40 °C 1 min power circuit   |
| Associated fuse rating                                   | 125 A gG at ≤ 690 V coordination type 1 for power circuit<br>125 A gG at ≤ 690 V coordination type 2 for power circuit<br>10 A gG for signalling circuit conforming to IEC 60947-5-1   |
| Average impedance  | 1.5 mOhm at 50 Hz - I <sub>th</sub> 80 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                                    | 1.45 Mcycles 65 A AC-3 at U <sub>e</sub> ≤ 440 V<br>1.4 Mcycles 80 A AC-1 at U <sub>e</sub> ≤ 440 V  |
| Power dissipation per pole                               | 6.3 W AC-3<br>9.6 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                                   | CCC<br>CSA<br>GOST<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 : EverLink BTR screw connectors 1 cable(s) 1...35 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Power circuit : EverLink BTR screw connectors 1 cable(s) 1...35 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Power circuit : EverLink BTR screw connectors 1 cable(s) 1...35 mm <sup>2</sup> - cable stiffness: solid - without cable end<br>Power circuit : EverLink BTR screw connectors 2 cable(s) 1...25 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Power circuit : EverLink BTR screw connectors 2 cable(s) 1...25 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Power circuit : EverLink BTR screw connectors 2 cable(s) 1...25 mm <sup>2</sup> - cable stiffness: solid - without 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 |
| Tightening torque  | 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 : 8 N.m - on EverLink BTR screw connectors - cable 25...35 mm <sup>2</sup> hexagonal 4 mm<br>Power circuit : 5 N.m - on EverLink BTR screw connectors - cable 1...25 mm <sup>2</sup> hexagonal 4 mm   |
| Operating time   | 12...26 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 | 6 Mcycles                  |
| Operating rate        | 3600 cyc/h at $\leq 60$ °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              | 140 VA at 20 °C (cos $\phi$ 0.75) 60 Hz<br>160 VA at 20 °C (cos $\phi$ 0.75) 50 Hz   |
| Hold-in power consumption in VA | 13 VA at 20 °C (cos $\phi$ 0.3) 60 Hz<br>15 VA at 20 °C (cos $\phi$ 0.3) 50 Hz   |
| Heat dissipation                | 4...5 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  |
| 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  | 122 mm   |
| Width   | 55 mm  |
| Depth   | 120 mm   |
| Product weight  | 0.86 kg  |

## Offer Sustainability

|                                  |   |
|----------------------------------|---|
| Sustainable offer status         | Green Premium product   |
| RoHS (date code: YYWW)           | Compliant - since 0501 - 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>  |

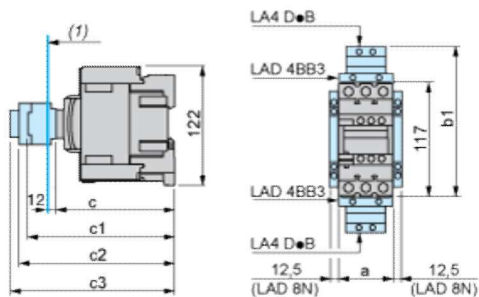
Contractual warranty

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

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Dimensions



(1) Minimum electrical clearance

| LC1 |                                    | D40A...D65A |
|-----|------------------------------------|-------------|
| a   |                                    | 55          |
| b1  | with LA4 D•2                       | –           |
|     | with LA4 DB3 or LAD 4BB3           | 136         |
|     | with LA4 DF, DT                    | 157         |
|     | with LA4 DM, DW, DL                | 166         |
| c   | without cover or add-on blocks     | 118         |
|     | with cover, without add-on blocks  | 120         |
| c1  | with LAD N (1 contact)             | –           |
|     | with LAD N or C (2 or 4 contacts)  | 150         |
| c2  | with LA6 DK10, LAD 6DK             | 163         |
| c3  | with LAD T, R, S                   | 171         |
|     | with LAD T, R, S and sealing cover | 175         |

Wiring

