



### Main

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|--|---|
| Range of product                       | TeSys D   |
| 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  |
| Poles description                      | 3P  |
| Pole contact composition               | 3 NO  |
| [Ue] rated operational voltage         | $\leq 690$ V AC for power circuit<br>$\leq 300$ V DC 25...400 Hz for power circuit  |
| [Ie] rated operational current         | 125 A ( $\leq 60$ °C) at $\leq 440$ V AC AC-1 for power circuit<br>80 A ( $\leq 60$ °C) at $\leq 440$ V AC AC-3 for power circuit   |
| Motor power kW                         | 22 kW at 220...230 V AC 50/60 Hz<br>37 kW at 380...400 V AC 50/60 Hz<br>45 kW at 1000 V AC 50/60 Hz<br>45 kW at 660...690 V AC 50/60 Hz<br>55 kW at 500 V AC 50/60 Hz<br>45 kW at 415...440 V AC 50/60 Hz   |
| Motor power hp                         | 20 hp at 200/208 V AC 50/60 Hz for 3 phases motors<br>7.5 hp at 115 V AC 50/60 Hz for 1 phase motors<br>15 hp at 230/240 V AC 50/60 Hz for 1 phase motors<br>25 hp at 230/240 V AC 50/60 Hz for 3 phases motors<br>60 hp at 460/480 V AC 50/60 Hz for 3 phases motors<br>60 hp at 575/600 V AC 50/60 Hz for 3 phases motors |
| Control circuit type                   | AC 50/60 Hz   |
| Control circuit voltage                | 120 V AC 50/60 Hz   |
| Auxiliary contact composition          | 1 NO + 1 NC   |
| [Uimp] rated impulse withstand voltage | Conforming to IEC 60947   |
| Overtoltage category                   | III   |

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| [I <sub>th</sub> ] conventional free air thermal current | 125 A at ≤ 60 °C for power circuit<br>10 A at ≤ 60 °C for signalling circuit  |
| I <sub>rms</sub> rated making capacity                   | 1100 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                                  | 1100 A at 440 V for power circuit conforming to IEC 60947   |
| [I <sub>cw</sub> ] rated short-time withstand current    | 135 A ≤ 40 °C 10 min power circuit<br>100 A 1 s signalling circuit<br>120 A 500 ms signalling circuit<br>140 A 100 ms signalling circuit<br>640 A ≤ 40 °C 10 s power circuit<br>990 A ≤ 40 °C 1 s power circuit<br>320 A ≤ 40 °C 1 min power circuit  |
| Associated fuse rating                                   | 160 A gG at ≤ 690 V coordination type 2 for power circuit<br>200 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  | 0.8 mΩ at 50 Hz - I <sub>th</sub> 125 A for power circuit   |
| [U <sub>i</sub> ] rated insulation voltage               | 1000 V for power circuit conforming to IEC 60947-4-1<br>600 V for power circuit certifications CSA<br>600 V for power circuit certifications UL<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                                    | 0.8 Mcycles 125 A AC-1 at U <sub>e</sub> ≤ 440 V<br>1.5 Mcycles 80 A AC-3 at U <sub>e</sub> ≤ 440 V   |
| Power dissipation per pole                               | 5.1 W AC-3<br>12.5 W AC-1   |
| Protective cover   | With  |
| Mounting support   | Rail<br>Plate   |
| 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                                   | RINA<br>CCC<br>DNV<br>GOST<br>UL<br>CSA<br>LROS<br>BV<br>GL   |
| Connections - terminals                                  | Power circuit : bars 13 x 16 mm<br>Control circuit : lugs-ring terminals - external diameter: 8 mm<br>Power circuit : lugs-ring terminals - external diameter: 17 mm  |
| Tightening torque  | Control circuit : 1.7 N.m - on lugs-ring terminals - with screwdriver flat Ø 6 mm screw : M3.5<br>Control circuit : 1.7 N.m - on lugs-ring terminals - with screwdriver Philips No 2 screw : M3.5<br>Power circuit : 9 N.m - on lugs-ring terminals hexagonal 10 mm screw : M6<br>Power circuit : 9 N.m - on lugs-ring terminals - with screwdriver flat Ø 8 mm screw : M6<br>Power circuit : 9 N.m - on bars - with screwdriver flat Ø 8 mm screw : M6<br>Power circuit : 9 N.m - on bars hexagonal 10 mm screw : M6 |
| Operating time   | 20...35 ms closing<br>6...20 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                                    | 4 Mcycles   |
| Operating rate   | 3600 cyc/h at ≤ 60 °C   |

## Complementary

|                                |   |
|--------------------------------|---|
| Coil technology                | Without built-in suppressor module  |
| Control circuit voltage limits | 0.85...1.1 U <sub>c</sub> operational at 55 °C, AC 60 Hz<br>0.3...0.6 U <sub>c</sub> drop-out at 55 °C, AC 50/60 Hz |

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|---------------------------------|--|
|                                 | 0.8...1.1 Uc operational at 55 °C, AC 50 Hz  |
| Inrush power in VA              | 245 VA at 20 °C (cos φ 0.75) 60 Hz<br>245 VA at 20 °C (cos φ 0.75) 50 Hz   |
| Hold-in power consumption in VA | 26 VA at 20 °C (cos φ 0.3) 60 Hz<br>26 VA at 20 °C (cos φ 0.3) 50 Hz   |
| Heat dissipation                | 6...10 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

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|---|---|
| IP degree of protection                               | IP2x 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>Shocks contactor open 8 Gn for 11 ms<br>Vibrations contactor closed 3 Gn, 5...300 Hz<br>Shocks contactor closed 10 Gn for 11 ms |
| Height  | 127 mm  |
| Width   | 85 mm   |
| Depth   | 130 mm  |
| Product weight  | 1.59 kg   |

## Offer Sustainability

|                                  |   |
|----------------------------------|---|
| Sustainable offer status         | Green Premium product   |
| RoHS (date code: YYWW)           | Compliant - since 0716 - 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</a>  |
| Product end of life instructions | Need no specific recycling operations   |

## Contractual warranty

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