

## LC1D25P7

TeSys D contactor - 3P(3 NO) - AC-3 -  $\leq 440$  V 25 A - 230 V AC coil



### Main

|   |  |
|---|--|
| 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   |
| Pole contact composition                    | 3 NO   |
| [Ue] rated operational voltage              | $\leq 690$ V AC 25...400 Hz for power circuit<br>$\leq 300$ V DC for power circuit   |
| [Ie] rated operational current              | 25 A ( $\leq 60$ °C) at $\leq 440$ V AC AC-3 for power circuit<br>40 A ( $\leq 60$ °C) at $\leq 440$ V AC AC-1 for power circuit   |
| Motor power kW                              | 11 kW at 380...400 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 220...230 V AC 50/60 Hz AC-3<br>11 kW at 415...440 V AC 50/60 Hz AC-3<br>5.5 kW at 400 V AC 50/60 Hz AC-4   |
| Motor power hp                              | 2 hp at 115 V AC 50/60 Hz for 1 phase motors<br>7.5 hp at 200/208 V AC 50/60 Hz for 3 phases motors<br>3 hp at 230/240 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 |
| Control circuit type                        | AC 50/60 Hz  |
| [Uc] control circuit voltage                | 230 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 | 40 A at $\leq 60$ °C for power circuit<br>10 A at $\leq 60$ °C for signalling circuit  |
| Irms rated making capacity                  | 450 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                     | 450 A at 440 V for power circuit conforming to IEC 60947   |
| [Icw] rated short-time withstand current    | 120 A $\leq 40$ °C 1 min power circuit<br>240 A $\leq 40$ °C 10 s power circuit<br>380 A $\leq 40$ °C 1 s power circuit<br>50 A $\leq 40$ °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  |
| Associated fuse rating                      | 40 A gG at $\leq 690$ V coordination type 2 for power  |

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|                               |   |
|-------------------------------|---|
|                               | circuit<br>63 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 mOhm at 50 Hz - Ith 40 A for power circuit  |
| [Ui] 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         | 1.65 Mcycles 25 A AC-3 at Ue ≤ 440 V<br>1.4 Mcycles 40 A AC-1 at Ue ≤ 440 V   |
| Power dissipation per pole    | 3.2 W AC-1<br>1.25 W AC-3   |
| Protective cover              | With  |
| Mounting support              | Plate<br>Rail   |
| Standards                     | UL 508<br>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   |
| 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)<br>1...2.5 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Power circuit : screw clamp terminals 1 cable(s)<br>1.5...10 mm <sup>2</sup> - cable stiffness: solid - without cable end<br>Control circuit : screw clamp terminals 1 cable(s)<br>1...4 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Control circuit : screw clamp terminals 2 cable(s)<br>1...4 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Control circuit : screw clamp terminals 1 cable(s)<br>1...4 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Control circuit : screw clamp terminals 1 cable(s)<br>1...4 mm <sup>2</sup> - cable stiffness: solid - without cable end<br>Control circuit : screw clamp terminals 2 cable(s)<br>1...4 mm <sup>2</sup> - cable stiffness: solid - without cable end<br>Power circuit : screw clamp terminals 1 cable(s)<br>2.5...10 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Power circuit : screw clamp terminals 2 cable(s)<br>2.5...10 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Power circuit : screw clamp terminals 1 cable(s)<br>1...10 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Power circuit : screw clamp terminals 2 cable(s)<br>1.5...6 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Power circuit : screw clamp terminals 2 cable(s)<br>2.5...10 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   |

Power circuit : 2.5 N.m - on screw clamp terminals  
 - with screwdriver flat Ø 6 mm  
 Power circuit : 2.5 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<br>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   |

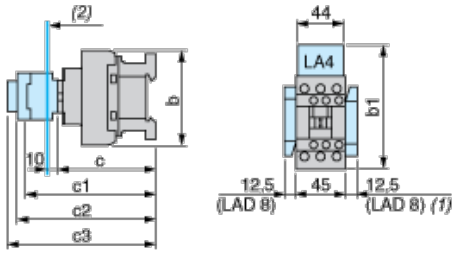
## Environment

|   |   |
|---|---|
| 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 closed 15 Gn for 11 ms<br>Shocks contactor open 8 Gn for 11 ms |
| height  | 85 mm   |
| width   | 45 mm   |
| depth   | 92 mm   |
| product weight  | 0.37 kg   |

## Offer Sustainability

|                                  |   |
|----------------------------------|---|
| Sustainable offer status         | Green Premium product   |
| RoHS (date code: YYWW)           | Compliant - since 0627 - Schneider Electric declaration of conformity |
| REACH                            | Reference not containing SVHC above the threshold                     |
| Product environmental profile    | Available   |
| Product end of life instructions | Available   |

## 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.                 |                    |

## Wiring

