

## LC1D40A6T7

TeSys D contactor - 3P(3 NO) - AC-3 -  $\leq 440$  V 40 A - 480 V AC 50/60 Hz 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   |
| 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              | 40 A ( $\leq 60$ °C) at $\leq 440$ V AC AC-3 for power circuit<br>60 A ( $\leq 60$ °C) at $\leq 440$ V AC AC-1 for power circuit   |
| Motor power kW                              | 11 kW at 220...230 V AC 50/60 Hz<br>22 kW at 500 V AC 50/60 Hz<br>30 kW at 660...690 V AC 50/60 Hz<br>18.5 kW at 380...400 V AC 50/60 Hz<br>22 kW at 415...440 V AC 50/60 Hz   |
| Motor power hp                              | 5 hp at 230/240 V AC 50/60 Hz for 1 phase motors<br>10 hp at 230/240 V AC 50/60 Hz for 3 phases motors<br>30 hp at 575/600 V AC 50/60 Hz for 3 phases motors<br>3 hp at 115 V AC 50/60 Hz for 1 phase motors<br>10 hp at 200/208 V AC 50/60 Hz for 3 phases motors<br>30 hp at 460/480 V AC 50/60 Hz for 3 phases motors |
| Control circuit type                        | AC 50/60 Hz  |
| Control circuit voltage                     | 480 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 | 60 A at $\leq 60$ °C for power circuit<br>10 A at $\leq 60$ °C for signalling circuit  |
| Irms rated making capacity                  | 800 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                     | 800 A at 440 V for power circuit conforming to IEC 60947   |
| [Icw] 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>320 A $\leq 40$ °C 10 s power circuit<br>720 A $\leq 40$ °C 1 s power circuit<br>72 A $\leq 40$ °C 10 min power circuit<br>165 A $\leq 40$ °C 1 min power circuit  |
| Associated fuse rating                      | 80 A gG at $\leq 690$ V coordination type 1 for power circuit<br>80 A gG at $\leq 690$ V coordination type 2 for power circuit<br>10 A gG for signalling circuit conforming to IEC   |

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|                               |   |
|-------------------------------|---|
|                               | 60947-5-1   |
| Average impedance             | 1.5 mOhm at 50 Hz - Ith 60 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         | 1.5 Mcycles 40 A AC-3 at $U_e \leq 440$ V<br>1.4 Mcycles 60 A AC-1 at $U_e \leq 440$ V  |
| Power dissipation per pole    | 5.4 W AC-1<br>2.4 W AC-3  |
| Protective cover              | With  |
| Mounting support              | Plate<br>Rail   |
| Standards                     | EN 60947-4-1<br>EN 60947-5-1<br>IEC 60947-4-1<br>IEC 60947-5-1<br>UL 508<br>CSA C22.2 No 14   |
| Product certifications        | CCC<br>CSA<br>GOST<br>UL  |
| Connections - terminals       | Control circuit : lugs-ring terminals - external diameter: 8 mm<br>Power circuit : lugs-ring terminals - external diameter: 16.5 mm   |
| Tightening torque             | Control circuit : 1.7 N.m - on lugs-ring terminals - with screwdriver flat $\varnothing$ 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 : 6 N.m - on lugs-ring terminals hexagonal 10 mm screw : M6                    |
| 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 = 2000000 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 $U_c$ at 60 °C drop-out 50/60 Hz<br>0.8...1.1 $U_c$ at 60 °C operational 50 Hz<br>0.85...1.1 $U_c$ at 60 °C operational 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                               | 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>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  | 0.85 kg  |

### Offer Sustainability

|                                  |   |
|----------------------------------|---|
| Sustainable offer status         | Not Green Premium product   |
| RoHS                             | Compliant - since 0001 - Schneider Electric declaration of conformity |
| Product end of life instructions | Need no specific recycling operations                                 |