



Main

|                                |  |
|--------------------------------|--|
| Range of product               | TeSys D  |
| Range                          | TeSys  |
| Product or component type      | Contacteur   |
| Device short name              | LC1D   |
| Contacteur application         | Motor control<br>Resistive load  |
| Utilisation category           | AC-3<br>AC-4<br>AC-1<br>AC-2   |
| Control circuit type           | AC 50/60 Hz  |
| Poles description              | 3P   |
| Pole contact composition       | 3 NO   |
| [Ie] rated operational current | 80 A (<= 140 °F (60 °C)) at <= 440 V AC AC-1 power circuit<br>65 A (<= 140 °F (60 °C)) at <= 440 V AC AC-3 power circuit   |
| Motor power kW                 | 30 kW at 440 V AC 50/60 Hz AC-3<br>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>30 kW at 415 V AC 50/60 Hz AC-3<br>37 kW at 1000 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                 | 10 hp at 230/240 V AC 60 Hz 1P motors conforming to CSA<br>10 hp at 230/240 V AC 60 Hz 1P motors conforming to UL<br>20 hp at 200/208 V AC 60 Hz 3P motors conforming to CSA<br>20 hp at 200/208 V AC 60 Hz 3P motors conforming to UL<br>20 hp at 230/240 V AC 60 Hz 3P motors conforming to CSA<br>20 hp at 230/240 V AC 60 Hz 3P motors conforming to UL<br>5 hp at 115 V AC 60 Hz 1P motors conforming to CSA<br>5 hp at 115 V AC 60 Hz 1P motors conforming to UL<br>50 hp at 460/480 V AC 60 Hz 3P motors conforming to CSA<br>50 hp at 460/480 V AC 60 Hz 3P motors conforming to UL<br>50 hp at 575/600 V AC 60 Hz 3P motors conforming to CSA<br>50 hp at 575/600 V AC 60 Hz 3P motors conforming to UL |
| [Uc] control circuit voltage   | 24 V AC 50/60 Hz   |

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

|                         |  |
|-------------------------|--|
| Connections - terminals | Control circuit: screw clamp terminal 1 cable 0...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: solid - without cable end<br>Control circuit: screw clamp terminal 2 cable 0...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: solid - without cable end<br>Power circuit: screw clamp terminal 1 cable 0...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> ) - cable stiffness: solid - without cable end<br>Power circuit: screw clamp terminal 2 cable 0...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> ) - cable stiffness: solid - without cable end<br>Power circuit: screw clamp terminal 1 cable 0...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> ) - cable stiffness: flexible - without cable end<br>Control circuit: screw clamp terminal 1 cable 0...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: flexible - with cable end<br>Control circuit: screw clamp terminal 2 cable 0...0 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) - cable stiffness: flexible - without cable end<br>Control circuit: screw clamp terminal 2 cable 0...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: flexible - with cable end<br>Power circuit: screw clamp terminal 2 cable 0...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> ) - cable stiffness: flexible - with cable end<br>Power circuit: screw clamp terminal 2 cable 0...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> ) - cable stiffness: flexible - without cable end<br>Power circuit : screw terminals |
|-------------------------|--|

## Complementary

|   |   |
|---|---|
| Coil technology                             | Without built-in bidirectional peak limiting diode suppressor   |
| Protective cover                            | With  |
| 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  |
| Auxiliary contact composition               | 1 NO + 1 NC   |
| Control circuit voltage limits              | 0.3...0.6 Uc at 140 °F (60 °C) drop-out 50/60 Hz<br>0.8...1.1 Uc at 140 °F (60 °C) operational 50 Hz<br>0.85...1.1 Uc at 140 °F (60 °C) operational 60 Hz   |
| [Ui] rated insulation voltage               | 600 V control circuit certifications CSA<br>600 V control circuit certifications UL<br>600 V power circuit certifications CSA<br>600 V power circuit certifications UL<br>690 V control circuit conforming to IEC 60947-1<br>690 V power circuit conforming to IEC 60947-1  |
| [Uimp] rated impulse withstand voltage      | 8 kV IEC 60947  |
| Overvoltage category                        | III   |
| Mounting support                            | Rail<br>Plate   |
| Flame retardance                            | V1 conforming to UL 94  |
| Tightening torque                           | Power circuit: 44.25 lbf.in (5 N.m) - on screw clamp terminal - with screwdriver flat Ø 6 mm<br>Control circuit: 10.62 lbf.in (1.2 N.m) - on screw clamp terminal - with screwdriver Philips No 2<br>Control circuit: 10.62 lbf.in (1.2 N.m) - on screw clamp terminal - with screwdriver flat Ø 6 mm<br>Power circuit: 44.25 lbf.in (5 N.m) - on screw clamp terminal - with screwdriver flat Ø 8 mm |
| System Voltage                              | <= 690 V AC 25...400 Hz power circuit   |
| [Ith] conventional free air thermal current | 10 A at <= 140 °F (60 °C) control circuit<br>80 A at <= 140 °F (60 °C) power circuit  |
| Irms rated making capacity                  | 1000 A at 440 V power circuit conforming to IEC 60947<br>140 A AC for control circuit conforming to IEC 60947-5-1   |
| Rated breaking capacity                     | 1000 A at 440 V power circuit conforming to IEC 60947   |
| Associated fuse rating                      | 10 A gG control circuit conforming to IEC 60947-5-1<br>125 A gG at <= 690 V coordination type 2 power circuit<br>160 A gG at <= 690 V coordination type 1 for power circuit   |
| Power dissipation per pole                  | 4.2 W AC-3<br>6.4 W AC-1  |
| Inrush power in VA                          | 140 VA at 68 °F (20 °C) (cos φ 0.75)<br>160 VA at 68 °F (20 °C) (cos φ 0.75)  |
| Hold-in power consumption in VA             | 13 VA at 68 °F (20 °C) (cos φ 0.3) 60 Hz<br>15 VA at 68 °F (20 °C) (cos φ 0.3) 50 Hz  |
| 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     | 6000000 cycles  |
| Operating rate            | 3600 cyc/h at <= 140 °F (60 °C)   |
| Minimum switching current | 5 mA control circuit  |
| Minimum switching voltage | 17 V control circuit  |
| Non-overlap time          | 1.5 ms on de-energisation between NC and NO contacts<br>1.5 ms on energisation between NC and NO contacts |
| Insulation resistance     | > 10 MOhm control circuit   |
| Height                    | 5 in (127 mm)   |
| Width                     | 2.95 in (75 mm)   |
| Depth                     | 4.69 in (119 mm)  |
| Product weight            | 3.09 lb(US) (1.4 kg)  |

## Environment

|   |   |
|---|---|
| Standards   | UL 508<br>EN 60947-5-1<br>IEC 60947-5-1<br>EN 60947-4-1<br>CSA C22.2 No 14<br>IEC 60947-4-1 |
| Product certifications                                | BV<br>CSA<br>UL<br>RINA<br>DNV<br>GOST<br>GL<br>CCC<br>LROS (Lloyds register of shipping)   |
| IP degree of protection                               | IP2x conforming to IEC 60529<br>IP2x conforming to VDE 0106                                 |
| Ambient air temperature for operation                 | 23...140 °F (-5...60 °C)  |
| Ambient air temperature for storage                   | -76...176 °F (-60...80 °C)  |
| Permissible ambient air temperature around the device | -40...158 °F (-40...70 °C) at Uc  |
| Operating altitude                                    | 9842.52 ft (3000 m) without derating in temperature   |
| Fire resistance                                       | 1562 °F (850 °C) conforming to IEC 60695-2-1  |
| Shock resistance                                      | 10 gn contactor opened<br>15 gn contactor closed  |
| Vibration resistance                                  | 2 gn 5...300 Hz contactor opened<br>4 gn 5...300 Hz contactor closed                        |
| Heat dissipation                                      | 4...5 W at 50/60 Hz for control circuit   |

## Offer Sustainability

|                                  |   |
|----------------------------------|---|
| Sustainable offer status         | Green Premium product   |
| RoHS (date code: YYWW)           | Compliant - since 0701 - 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

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

LC1D65B7 is replaced by:

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### Contactors LC1D65AB7

TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 65 A - 24 V AC 50/60 Hz coil

Qty 1

Reason for Substitution: End of life | Substitution date: 01 January 2017

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