

# LC1D65ABD

contactor TeSys LC1-D - 3 poles - AC-3 440V  
65 A - coil 250 V DC



## Main

|                              |                                 |
|------------------------------|---------------------------------|
| Range of product             | TeSys D                         |
| Product or component type    | Contacteur                      |
| Device short name            | LC1D                            |
| Contacteur application       | Motor control<br>Resistive load |
| Utilisation category         | AC-1<br>AC-2<br>AC-3<br>AC-4    |
| Control circuit type         | DC                              |
| Coil type                    | Standard                        |
| Poles description            | 3P                              |
| Pole contact composition     | 3 NO                            |
| [Uc] control circuit voltage | 24 V DC                         |

## Complementary

|  |  |
|--|--|
| Coil technology                        | Built-in bidirectional peak limiting diode suppressor  |
| Protective cover                       | With   |
| [Ie] rated operational current         | 65 A ( $\leq 60\text{ }^{\circ}\text{C}$ ) AC AC-3 for power circuit<br>80 A ( $\leq 60\text{ }^{\circ}\text{C}$ ) AC AC-1 for power circuit   |
| Motor power kW                         | 18.5 kW at 220...240 V AC 50/60 Hz<br>30 kW at 380...400 V AC 50/60 Hz<br>30 kW at 415 V AC 50/60 Hz<br>30 kW at 440 V AC 50/60 Hz<br>37 kW at 500 V AC 50/60 Hz<br>37 kW at 660...690 V AC 50/60 Hz   |
| Motor power hp                         | 5 hp at 115 V AC 60 Hz for 1P motors conforming to UL<br>5 hp at 115 V AC 60 Hz for 1P motors conforming to CSA<br>10 hp at 230/240 V AC 60 Hz for 1P motors conforming to UL<br>10 hp at 230/240 V AC 60 Hz for 1P motors conforming to CSA<br>20 hp at 230/240 V AC 60 Hz for 3P motors conforming to CSA<br>20 hp at 230/240 V AC 60 Hz for 3P motors conforming to UL<br>20 hp at 200/208 V AC 60 Hz for 3P motors conforming to CSA<br>20 hp at 200/208 V AC 60 Hz for 3P motors conforming to UL<br>50 hp at 575/600 V AC 60 Hz for 3P motors conforming to CSA<br>50 hp at 575/600 V AC 60 Hz for 3P motors conforming to UL<br>50 hp at 460/480 V AC 60 Hz for 3P motors conforming to CSA<br>50 hp at 460/480 V AC 60 Hz for 3P motors conforming to UL |
| 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         | 0.1...0.3 U <sub>c</sub> at 60 °C drop-out<br>0.75...1.25 U <sub>c</sub> at 60 °C operational  |
| Time constant                          | 34 ms  |
| [Ui] rated insulation voltage          | 600 V for power circuit certifications UL<br>600 V for power circuit certifications CSA<br>600 V for control circuit certifications UL<br>600 V for control circuit certifications CSA<br>690 V for power circuit conforming to IEC 60947-1<br>690 V for control circuit conforming to IEC 60947-1   |
| [Uimp] rated impulse withstand voltage | 6 kV conforming to IEC 60947   |
| Overvoltage category                   | III  |
| Mounting support                       | Plate<br>rail  |

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|   |  |
|---|--|
| Flame retardance                            | V1 conforming to UL 94   |
| Connections - terminals                     | Control circuit: screw clamp terminal 1 cable 1...4 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Control circuit: screw clamp terminal 2 cable 1...4 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Control circuit: screw clamp terminal 1 cable 1...4 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Control circuit: screw clamp terminal 2 cable 1...2.5 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Control circuit: screw clamp terminal 1 cable 1...4 mm <sup>2</sup> - cable stiffness: solid - without cable end<br>Control circuit: screw clamp terminal 2 cable 1...4 mm <sup>2</sup> - cable stiffness: solid - without cable end<br>Power circuit: EverLink BTR screw connectors 2 cable 1...25 mm <sup>2</sup> - cable stiffness: solid - without cable end<br>Power circuit: EverLink BTR screw connectors 2 cable 1...25 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Power circuit: EverLink BTR screw connectors 2 cable 1...25 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Power circuit: EverLink BTR screw connectors 1 cable 1...35 mm <sup>2</sup> - cable stiffness: solid - without cable end<br>Power circuit: EverLink BTR screw connectors 1 cable 1...35 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Power circuit: EverLink BTR screw connectors 1 cable 1...35 mm <sup>2</sup> - cable stiffness: flexible - without cable end |
| Tightening torque                           | Control circuit: 1.7 N.m - on screw clamp terminal - with screwdriver flat Ø 6 mm<br>Control circuit: 1.7 N.m - on screw clamp terminal - with screwdriver Philips No 2 2 mm<br>Power circuit: 5 N.m - on EverLink BTR screw connectors - cable 1...25 mm <sup>2</sup> hexagonal 4 mm<br>Power circuit: 8 N.m - on EverLink BTR screw connectors - cable 35 mm <sup>2</sup> hexagonal 4 mm   |
| [Ue] rated operational voltage              | <= 690 V AC 25...400 Hz for power circuit  |
| [Ith] conventional free air thermal current | 10 A at ≤ 60 °C for control circuit<br>80 A at ≤ 60 °C for power circuit   |
| Irms rated making capacity                  | 250 A DC for control circuit conforming to IEC 60947-5-1<br>1000 A at 440 V for power circuit conforming to IEC 60947  |
| Rated breaking capacity                     | 1000 A at 440 V for power circuit conforming to IEC 60947  |
| Associated fuse rating                      | 10 A gG for control circuit conforming to IEC 60947-5-1<br>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  |
| Average impedance                           | 1.5 mOhm at 50 Hz - Ith 80 A for power circuit   |
| Power dissipation per pole                  | 6.3 W AC-3<br>9.6 W AC-1   |
| Inrush power in W                           | 19 W at 20 °C  |
| Hold-in power consumption in W              | 7.4 W at 20 °C   |
| Operating time                              | 20 ms opening<br>50 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                       | 10000000 cycles  |
| Operating rate                              | 3600 cyc/h at ≤ 60 °C  |
| Minimum switching current                   | 5 mA for control circuit   |
| Minimum switching voltage                   | 17 V for control circuit   |
| Non-overlap time                            | 1.5 ms on energisation between NC and NO contacts<br>1.5 ms on de-energisation between NC and NO contacts  |
| Insulation resistance                       | > 10 MOhm for control circuit  |
| Rated operational power in W                | 14 W at 24 V DC-13 - electrical durability: 10000000 cycles - for control circuit<br>48 W at 24 V DC-13 - electrical durability: 3000000 cycles - for control circuit<br>96 W at 24 V DC-13 - electrical durability: 1000000 cycles - for control circuit  |
| Height                                      | 122 mm   |
| Width                                       | 55 mm  |
| Depth                                       | 120 mm   |
| Product weight                              | 2.185 kg   |

## Environment

|   |   |
|---|---|
| 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                                | BV<br>CCC<br>CSA<br>DNV (Det Norske Veritas)<br>GL<br>GOST<br>LROS (pending)<br>RINA<br>UL  |
| IP degree of protection                               | IP2x conforming to VDE 0106<br>IP2x conforming to IEC 60529                                 |
| Protective treatment                                  | TH (pollution degree: 3) conforming to IEC 60068  |
| 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 U <sub>c</sub>   |
| Operating altitude                                    | 3000 m without derating in temperature  |
| Fire resistance                                       | 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                        |
| RoHS EUR conformity date                              | 0001  |
| RoHS EUR status                                       | Compliant   |