

# LP1D65008FW

TeSys D contactor - 4P(2 NO + 2 NC) - AC-1 -  
≤ 440 V 80 A - 110 V DC coil



## Main

|   |  |
|---|--|
| Range of product                            | TeSys D  |
| Product or component type                   | Contactor  |
| Device short name                           | LP1D   |
| Contactor application                       | Resistive load   |
| Utilisation category                        | AC-1   |
| Poles description                           | 4P   |
| Power pole contact composition              | 2 NO + 2 NC  |
| [Ue] rated operational voltage              | ≤ 690 V AC 25...400 Hz for power circuit<br>≤ 690 V DC for power circuit   |
| [Ie] rated operational current              | 80 A (≤ 60 °C) at ≤ 440 V AC AC-1 for power circuit  |
| Control circuit type                        | DC wide range  |
| Control circuit voltage                     | 110 V DC   |
| [Uimp] rated impulse withstand voltage      | 6 kV conforming to IEC 60947   |
| Overtoltage category                        | III  |
| [Ith] conventional free air thermal current | 80 A at ≤ 60 °C for power circuit  |
| Irms rated making capacity                  | 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  |
| [Icw] rated short-time withstand current    | 110 A ≤ 40 °C 10 min power circuit<br>260 A ≤ 40 °C 1 min power circuit<br>520 A ≤ 40 °C 10 s power circuit<br>900 A ≤ 40 °C 1 s power circuit |
| Associated fuse rating                      | 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   |
| [Ui] rated insulation voltage               | 690 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 |
| Power dissipation per pole                  | 9.6 W AC-1   |
| Safety cover                                | Without  |
| 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 n°14   |
| Product certifications                      | BV<br>CCC<br>CSA<br>DNV<br>GL<br>GOST<br>RINA<br>UL<br>LROS  |

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|                                  |   |
|----------------------------------|---|
| Connections - terminals          | <p>Power circuit: screw clamp terminals 1 cable(s)<br/>1...35 mm<sup>2</sup> - cable stiffness: flexible - without cable end</p> <p>Power circuit: screw clamp terminals 2 cable(s)<br/>1...25 mm<sup>2</sup> - cable stiffness: flexible - without cable end</p> <p>Power circuit: screw clamp terminals 1 cable(s)<br/>1...35 mm<sup>2</sup> - cable stiffness: flexible - with cable end</p> <p>Power circuit: screw clamp terminals 2 cable(s)<br/>1...25 mm<sup>2</sup> - cable stiffness: flexible - with cable end</p> <p>Power circuit: screw clamp terminals 1 cable(s)<br/>1...35 mm<sup>2</sup> - cable stiffness: solid - without cable end</p> <p>Power circuit: screw clamp terminals 2 cable(s)<br/>1...25 mm<sup>2</sup> - cable stiffness: solid - without cable end</p> <p>Control circuit: screw clamp terminals 1 cable(s)<br/>1...4 mm<sup>2</sup> - cable stiffness: flexible - without cable end</p> <p>Control circuit: screw clamp terminals 2 cable(s)<br/>1...4 mm<sup>2</sup> - cable stiffness: flexible - without cable end</p> <p>Control circuit: screw clamp terminals 1 cable(s)<br/>1...4 mm<sup>2</sup> - cable stiffness: flexible - with cable end</p> <p>Control circuit: screw clamp terminals 2 cable(s)<br/>1...2.5 mm<sup>2</sup> - cable stiffness: flexible - with cable end</p> <p>Control circuit: screw clamp terminals 1 cable(s)<br/>1...4 mm<sup>2</sup> - cable stiffness: solid - without cable end</p> <p>Control circuit: screw clamp terminals 2 cable(s)<br/>1...4 mm<sup>2</sup> - cable stiffness: solid - without cable end</p> |
| Tightening torque                | <p>Power circuit: 5 N.m - on screw clamp terminals - cable ≤ 25 mm<sup>2</sup> hexagonal 4 mm</p> <p>Power circuit: 8 N.m - on screw clamp terminals - cable 25...35 mm<sup>2</sup> hexagonal 4 mm</p> <p>Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm</p> <p>Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2</p>   |
| Operating time                   | <p>4...19 ms opening</p> <p>12...26 ms closing</p>  |
| Safety reliability level         | <p>B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1</p> <p>B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1</p>   |
| Mechanical durability (millions) | 6 Mcycles   |
| Operating rate                   | 3600 cyc/h at ≤ 60 °C   |

## Complementary

|                                |   |
|--------------------------------|---|
| Coil technology                | Built-in bidirectional peak limiting diode suppressor                           |
| Control circuit voltage limits | <p>0.1...0.3 Uc at 55 °C drop-out</p> <p>0.75...1.2 Uc at 55 °C operational</p> |
| Time constant                  | 75 ms   |
| Inrush power in W              | 22 W at 20 °C   |
| Hold-in power consumption in W | 22 W at 20 °C   |

## 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                                 | <p>Vibrations contactor open 2 Gn, 5...300 Hz</p> <p>Vibrations contactor closed 4 Gn, 5...300 Hz</p> <p>Shocks contactor open 10 Gn for 11 ms</p> <p>Shocks contactor closed 15 Gn for 11 ms</p> |

|                |         |
|----------------|---------|
| Height         | 127 mm  |
| Width          | 85 mm   |
| Depth          | 125 mm  |
| Product weight | 2.22 kg |