

## LP1D40008ND

TeSys D contactor - 4P(2 NO + 2 NC) - AC-1 - ≤ 440 V 60 A - 60 V DC coil



### Main

|                                             |                                                                                                                                                |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                       | TeSys                                                                                                                                          |
| Product name                                | TeSys D                                                                                                                                        |
| Product or component type                   | Contacteur                                                                                                                                     |
| Device short name                           | LP1D                                                                                                                                           |
| Contacteur application                      | Resistive load                                                                                                                                 |
| Utilisation category                        | AC-1                                                                                                                                           |
| Poles description                           | 4P                                                                                                                                             |
| Pole contact composition                    | 2 NO + 2 NC                                                                                                                                    |
| [Ue] rated operational voltage              | ≤ 690 V AC 25...400 Hz for power circuit<br>≤ 300 V DC for power circuit                                                                       |
| [Ie] rated operational current              | 60 A (≤ 60 °C) at ≤ 440 V AC AC-1 for power circuit                                                                                            |
| Control circuit type                        | DC standard                                                                                                                                    |
| Control circuit voltage                     | 60 V DC                                                                                                                                        |
| [Uimp] rated impulse withstand voltage      | 6 kV conforming to IEC 60947                                                                                                                   |
| Overvoltage category                        | III                                                                                                                                            |
| [Ith] conventional free air thermal current | 60 A at ≤ 60 °C for power circuit                                                                                                              |
| Irms rated making capacity                  | 800 A at 440 V for power circuit conforming to IEC 60947                                                                                       |
| Rated breaking capacity                     | 800 A at 440 V for power circuit conforming to IEC 60947                                                                                       |
| [Icw] rated short-time withstand current    | 320 A ≤ 40 °C 10 s power circuit<br>720 A ≤ 40 °C 1 s power circuit<br>72 A ≤ 40 °C 10 min power circuit<br>165 A ≤ 40 °C 1 min power circuit  |
| Associated fuse rating                      | 80 A gG at ≤ 690 V coordination type 1 for power circuit<br>80 A gG at ≤ 690 V coordination type 2 for power circuit                           |
| 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 |
| Electrical durability                       | 1.4 Mcycles 60 A AC-1 at Ue ≤ 440 V                                                                                                            |
| Power dissipation per pole                  | 5.4 W AC-1                                                                                                                                     |
| Protective 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 No 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

Control circuit : screw clamp terminals 2 cable(s)  
1...2.5 mm<sup>2</sup> - cable stiffness: flexible - with cable end  
Control circuit : screw clamp terminals 1 cable(s)  
1...4 mm<sup>2</sup> - cable stiffness: flexible - without cable end  
Control circuit : screw clamp terminals 2 cable(s)  
1...4 mm<sup>2</sup> - cable stiffness: flexible - without cable end  
Control circuit : screw clamp terminals 1 cable(s)  
1...4 mm<sup>2</sup> - cable stiffness: flexible - with cable end  
Control circuit : screw clamp terminals 1 cable(s)  
1...4 mm<sup>2</sup> - cable stiffness: solid - without cable end  
Control circuit : screw clamp terminals 2 cable(s)  
1...4 mm<sup>2</sup> - cable stiffness: solid - without cable end  
Power circuit : screw clamp terminals 1 cable(s)  
1...35 mm<sup>2</sup> - cable stiffness: flexible - without cable end  
Power circuit : screw clamp terminals 2 cable(s)  
1...25 mm<sup>2</sup> - cable stiffness: flexible - without cable end  
Power circuit : screw clamp terminals 1 cable(s)  
1...35 mm<sup>2</sup> - cable stiffness: flexible - with cable end  
Power circuit : screw clamp terminals 2 cable(s)  
1...25 mm<sup>2</sup> - cable stiffness: flexible - with cable end  
Power circuit : screw clamp terminals 1 cable(s)  
1...35 mm<sup>2</sup> - cable stiffness: solid - without cable end  
Power circuit : screw clamp terminals 2 cable(s)  
1...25 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<br>Power circuit : 5 N.m - on screw clamp terminals - cable ≤ 25 mm <sup>2</sup> hexagonal 4 mm<br>Power circuit : 8 N.m - on screw clamp terminals - cable 25...35 mm <sup>2</sup> hexagonal 4 mm |
| 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    | 10 Mcycles                                                                                                                                                                                                                                                                                                                                                                     |
| Operating rate           | 3600 cyc/h at ≤ 60 °C                                                                                                                                                                                                                                                                                                                                                          |

## Complementary

|                                |                                                                                              |
|--------------------------------|----------------------------------------------------------------------------------------------|
| Coil technology                | Built-in bidirectional peak limiting diode suppressor                                        |
| Control circuit voltage limits | 0.1...0.3 U <sub>c</sub> at 55 °C drop-out<br>0.85...1.1 U <sub>c</sub> at 55 °C operational |
| 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 U <sub>c</sub>           |
| 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                | 127 mm                                                                                                                                                                         |
| Width                 | 85 mm                                                                                                                                                                          |
| Depth                 | 125 mm                                                                                                                                                                         |
| Product weight        | 2.21 kg                                                                                                                                                                        |