



Main

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| Range | TeSys |
| Product name | TeSys D |
| Product or component type | Contactors |
| Device short name | LP1D |
| Contactors application | Resistive load |
| Utilisation category | AC-1 |
| Poles description | 4P |
| Pole contact composition | 2 NO + 2 NC |
| System Voltage | <= 690 V AC 25...400 Hz power circuit <= 300 V DC power circuit |
| [Ie] rated operational current | 60 A (<= 140 °F (60 °C)) at <= 440 V AC AC-1 power circuit |
| [Uc] control circuit voltage | 125 V DC |
| Coil type | DC standard |
| [Uimp] rated impulse withstand voltage | 6 kV conforming to IEC 60947 |
| Overvoltage category | III |
| [Ith] conventional free air thermal current | 60 A at <= 140 °F (60 °C) power circuit |
| Irms rated making capacity | 800 A at 440 V power circuit conforming to IEC 60947 |
| Rated breaking capacity | 800 A at 440 V power circuit conforming to IEC 60947 |
| [Icw] rated short-time withstand current | 320 A <= 104 °F (40 °C) 10 s power circuit 720 A <= 104 °F (40 °C) 1 s power circuit 72 A <= 104 °F (40 °C) 10 min power circuit 165 A <= 104 °F (40 °C) 1 min power circuit |
| Associated fuse rating | 80 A gG at <= 690 V coordination type 1 power circuit 80 A gG at <= 690 V coordination type 2 power circuit |
| Average impedance | 1.5 mOhm at 50 Hz - Ith 60 A power circuit |
| [Ui] rated insulation voltage | 600 V power circuit certifications CSA 600 V power circuit certifications UL 690 V 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 Rail |
| Standards | UL 508 CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 |
| Product certifications | UL CSA CCC EAC GL BV DNV LROS (Lloyds register of shipping) |
| Connections - terminals | Control circuit: screw clamp terminals 2 cable(s) 0...0 in ² (1...2.5 mm ²) - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 1 cable(s) |

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| | 0...0.01 in ² (1...4 mm ²) - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 2 cable(s) 0...0.01 in ² (1...4 mm ²) - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 1 cable(s) 0...0.01 in ² (1...4 mm ²) - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 1 cable(s) 0...0.01 in ² (1...4 mm ²) - cable stiffness: solid - without cable end Control circuit: screw clamp terminals 2 cable(s) 0...0.01 in ² (1...4 mm ²) - cable stiffness: solid - without cable end Power circuit: screw clamp terminals 1 cable(s) 0...0.05 in ² (1...35 mm ²) - cable stiffness: flexible - without cable end Power circuit: screw clamp terminals 2 cable(s) 0...0.04 in ² (1...25 mm ²) - cable stiffness: flexible - without cable end Power circuit: screw clamp terminals 1 cable(s) 0...0.05 in ² (1...35 mm ²) - cable stiffness: flexible - with cable end Power circuit: screw clamp terminals 2 cable(s) 0...0.04 in ² (1...25 mm ²) - cable stiffness: flexible - with cable end Power circuit: screw clamp terminals 1 cable(s) 0...0.05 in ² (1...35 mm ²) - cable stiffness: solid - without cable end Power circuit: screw clamp terminals 2 cable(s) 0...0.04 in ² (1...25 mm ²) - cable stiffness: solid - without cable end |
| Tightening torque | Control circuit: 15.04 lbf.in (1.7 N.m) - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 15.04 lbf.in (1.7 N.m) - on screw clamp terminals - with screwdriver Philips No 2 Power circuit: 70.8 lbf.in (8 N.m) - on screw clamp terminals - cable 0.04...0.05 in ² (25...35 mm ²) hexagonal 0.16 in (4 mm) Power circuit : 5 N.m - on screw clamp terminals - cable 1...25 mm ² hexagonal 4 mm |
| Operating time | 12...26 ms closing 4...19 ms opening |
| Safety reliability level | B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 |
| Mechanical durability | 10 Mcycles |
| Operating rate | 3600 cyc/h at ≤ 140 °F (60 °C) |

Complementary

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| Coil technology | Built-in bidirectional peak limiting diode suppressor |
| Control circuit voltage limits | 0.1...0.3 Uc drop-out at 131 °F (55 °C), DC 0.85...1.1 Uc operational at 55 °C, DC |
| Time constant | 75 ms |
| Inrush power in W | 22 W at 68 °F (20 °C) |
| Hold-in power consumption in W | 22 W at 68 °F (20 °C) |

Environment

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| IP degree of protection | IP20 front face conforming to IEC 60529 |
| protective treatment | TH conforming to IEC 60068-2-30 |
| pollution degree | 3 |
| 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 |
| flame retardance | V1 conforming to UL 94 |

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| mechanical robustness | Vibrations contactor open 2 Gn, 5...300 Hz Vibrations contactor closed 4 Gn, 5...300 Hz Shocks contactor open 10 Gn for 11 ms Shocks contactor closed 15 Gn for 11 ms |
| height | 5 in (127 mm) |
| width | 3.35 in (85 mm) |
| depth | 7.17 in (182 mm) |
| product weight | 4.87 lb(US) (2.21 kg) |

Contractual warranty

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| Warranty period | 18 months |
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