Product datasheet

Specification





TeSys D contactor - 4P(2 NO + 2 NC) - AC-1 - <= 440 V 25 A - 230 V AC coil

LC1D128P7

Main

| Range of product | TeSys Deca | |
|--------------------------------|---|--|
| product or component type | Contactor | |
| Device short name | LC1D | |
| contactor application | Resistive load | |
| Utilisation category | AC-1 AC-3 AC-3e AC-4 | |
| poles description | 4P | |
| [Ue] rated operational voltage | Power circuit: <= 690 V AC 25400 Hz Power circuit: <= 300 V DC | |
| [le] rated operational current | 25 A (at <60 °C) at <= 440 V AC AC-1 for power circuit | |
| [Uc] control circuit voltage | 230 V AC 50/60 Hz | |

Complementary

| • | |
|---|--|
| Compatibility code | LC1D |
| Pole contact composition | 2 NO + 2 NC |
| Protective cover | With |
| [Ith] conventional free air thermal current | 25 A (at 60 °C) for power circuit 10 A (at 60 °C) for signalling circuit |
| Irms rated making capacity | 250 A at 440 V for power circuit conforming to IEC 60947 140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1 |
| Rated breaking capacity | 250 A at 440 V for power circuit conforming to IEC 60947 |
| [lcw] rated short-time withstand current | 105 A 40 °C - 10 s for power circuit 210 A 40 °C - 1 s for power circuit 30 A 40 °C - 10 min for power circuit 61 A 40 °C - 1 min for power circuit 100 A - 1 s for signalling circuit 120 A - 500 ms for signalling circuit 140 A - 100 ms for signalling circuit |
| Associated fuse rating | 10 A gG for signalling circuit conforming to IEC 60947-5-1 40 A gG at <= 690 V coordination type 1 for power circuit 25 A gG at <= 690 V coordination type 2 for power circuit |
| Average impedance | 2.5 mOhm - Ith 25 A 50 Hz for power circuit |
| Power dissipation per pole | 1.56 W AC-1 |

| [Ui] rated insulation voltage | Power circuit: 690 V conforming to IEC 60947-4-1 Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Signalling circuit: 690 V conforming to IEC 60947-1 Signalling circuit: 600 V CSA certified Signalling circuit: 600 V UL certified |
|--|---|
| Overvoltage category | III |
| Pollution degree | 3 |
| [Uimp] rated impulse withstand | 6 kV conforming to IEC 60947 |
| voltage 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 | 15 Mcycles |
| Electrical durability | 0.8 Mcycles 25 A AC-1 at Ue <= 440 V |
| Control circuit type | AC at 50/60 Hz |
| Coil technology | Without built-in suppressor module |
| Control circuit voltage limits | 0.30.6 Uc (-4070 °C):drop-out AC 50/60 Hz 0.81.1 Uc (-4060 °C):operational AC 50 Hz 0.851.1 Uc (-4060 °C):operational AC 60 Hz 11.1 Uc (6070 °C):operational AC 50/60 Hz |
| Inrush power in VA | 70 VA 60 Hz cos phi 0.75 (at 20 °C) 70 VA 50 Hz cos phi 0.75 (at 20 °C) |
| Hold-in power consumption in VA | 7.5 VA 60 Hz cos phi 0.3 (at 20 °C) 7 VA 50 Hz cos phi 0.3 (at 20 °C) |
| Heat dissipation | 23 W at 50/60 Hz |
| Operating time | 1222 ms closing 419 ms opening |
| Maximum operating rate | 3600 cyc/h 60 °C |
| Connections - terminals Tightening torque | Power circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 2 14 mm² - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 12.5 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 14 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 14 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 14 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 12.5 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: solid without cable end Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2 Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2 |
| | Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2 Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2 |
| Auxiliary contact composition | 1 NO + 1 NC |
| Auxiliary contacts type | type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1 type mirror contact 1 NC conforming to IEC 60947-4-1 |

| Signalling circuit frequency | 25400 Hz |
|------------------------------|--|
| Minimum switching voltage | 17 V for signalling circuit |
| Minimum switching current | 5 mA for signalling circuit |
| Insulation resistance | > 10 MOhm for signalling circuit |
| Non-overlap time | 1.5 ms on de-energisation between NC and NO contact 1.5 ms on energisation between NC and NO contact |
| mounting support | Rail Plate |

Environment

| Standards | CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508 IEC 60335-1 |
|---|---|
| Product certifications | GL BV DNV LROS (Lloyds register of shipping) RINA UL CCC CSA GOST UKCA CB |
| IP degree of protection | IP20 front face conforming to IEC 60529 |
| Protective treatment | TH conforming to IEC 60068-2-30 |
| Climatic withstand | conforming to IACS E10 exposure to damp heat conforming to IEC 60947-1 Annex Q category D exposure to damp heat |
| Permissible ambient air temperature around the device | -4060 °C 6070 °C with derating |
| Operating altitude | 03000 m |
| Fire resistance | 850 °C conforming to IEC 60695-2-1 |
| Flame retardance | V1 conforming to UL 94 |
| Mechanical robustness | Vibrations contactor open (2 Gn, 5300 Hz) Vibrations contactor closed (4 Gn, 5300 Hz) Shocks contactor open (10 Gn for 11 ms) Shocks contactor closed (15 Gn for 11 ms) |
| Height | 85 mm |
| Width | 45 mm |
| Depth | 92 mm |
| net weight | 0.365 kg |

Packing Units

| Unit Type of Package 1 | PCE |
|------------------------------|-----------|
| Number of Units in Package 1 | 1 |
| Package 1 Height | 5.500 cm |
| Package 1 Width | 9.500 cm |
| Package 1 Length | 12.000 cm |

| Package 1 Weight | 395.000 g |
|------------------------------|------------|
| Unit Type of Package 2 | S02 |
| Number of Units in Package 2 | 16 |
| Package 2 Height | 15.000 cm |
| Package 2 Width | 30.000 cm |
| Package 2 Length | 40.000 cm |
| Package 2 Weight | 6.740 kg |
| Unit Type of Package 3 | P06 |
| Number of Units in Package 3 | 256 |
| Package 3 Height | 75.000 cm |
| Package 3 Width | 60.000 cm |
| Package 3 Length | 80.000 cm |
| Package 3 Weight | 115.500 kg |

Contractual warranty

Warranty 18 months



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Transparency RoHS/REACh

Well-being performance

| ⊘ | Reach Free Of Svhc |
|----------|--------------------------------|
| ⊘ | Toxic Heavy Metal Free |
| ⊘ | Mercury Free |
| ⊘ | Rohs Exemption Information Yes |
| ⊘ | Pvc Free |

Certifications & Standards

| Reach Regulation | REACh Declaration |
|--------------------------|---|
| Eu Rohs Directive | Compliant EU RoHS Declaration |
| China Rohs Regulation | China RoHS declaration Pro-active China RoHS declaration (out of China RoHS legal scope) |
| Environmental Disclosure | Product Environmental Profile |
| Weee | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| Circularity Profile | End of Life Information |