

LC1D123P7

TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 12 A - 230 V AC coil



Main

| | |
|---|---|
| Commercial Status | Commercialised |
| Range of product | TeSys D |
| Product or component type | Contactor |
| Device short name | LC1D |
| Contactor application | Motor control Resistive load |
| Utilisation category | AC-1 AC-3 |
| Poles description | 3P |
| Power pole contact composition | 3 NO |
| [Ue] rated operational voltage | <= 300 V DC for power circuit <= 690 V AC 25...400 Hz for power circuit |
| [Ie] rated operational current | 16 A (<= 60 °C) at <= 440 V AC AC-1 for power circuit 12 A (<= 60 °C) at <= 440 V AC AC-3 for power circuit |
| Motor power kW | 7.5 kW at 660...690 V AC 50/60 Hz 7.5 kW at 500 V AC 50/60 Hz 5.5 kW at 415...440 V AC 50/60 Hz 5.5 kW at 380...400 V AC 50/60 Hz 3 kW at 220...230 V AC 50/60 Hz |
| Motor power HP (UL / CSA) | 10 hp at 575/600 V AC 50/60 Hz for 3 phases motors 7.5 hp at 460/480 V AC 50/60 Hz for 3 phases motors 3 hp at 230/240 V AC 50/60 Hz for 3 phases motors 3 hp at 200/208 V AC 50/60 Hz for 3 phases motors 2 hp at 230/240 V AC 50/60 Hz for 1 phase motors 1 hp at 115 V AC 50/60 Hz for 1 phase motors |
| Control circuit type | AC 50/60 Hz |
| Control circuit voltage | 230 V AC 50/60 Hz |
| Auxiliary contact composition | 1 NO + 1 NC |
| [Uimp] rated impulse withstand voltage | 6 kV conforming to IEC 60947 |
| Overvoltage category | III |
| [Ith] conventional free air thermal current | 16 A at <= 60 °C for power circuit 10 A at <= 60 °C for signalling circuit |
| Irms rated making capacity | 250 A DC for signalling circuit conforming to IEC 60947-5-1 140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A at 440 V for power circuit conforming to IEC 60947 |
| Rated breaking capacity | 250 A at 440 V for power circuit conforming to IEC 60947 |
| [Icw] rated short-time withstand current | 61 A <= 40 °C 1 min power circuit 30 A <= 40 °C 10 min power circuit 140 A 100 ms signalling circuit 120 A 500 ms signalling circuit 100 A 1 s signalling circuit 210 A <= 40 °C 1 s power circuit 105 A <= 40 °C 10 s power circuit |

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

| | |
|-------------------------------|--|
| Associated fuse rating | 10 A gG for signalling circuit conforming to IEC 60947-5-1 25 A gG at ≤ 690 V coordination type 2 for power circuit 40 A gG at ≤ 690 V coordination type 1 for power circuit |
| Average impedance | 2.5 mOhm at 50 Hz - lth 16 A for power circuit |
| [Ui] rated insulation voltage | 600 V for signalling circuit certifications UL 600 V for signalling circuit certifications CSA 690 V for signalling circuit conforming to IEC 60947-1 600 V for power circuit certifications UL 600 V for power circuit certifications CSA 690 V for power circuit conforming to IEC 60947-4-1 |
| Electrical durability | 0.8 Mcycles 25 A AC-1 at Ue ≤ 440 V 2 Mcycles 12 A AC-3 at Ue ≤ 440 V |
| Power dissipation per pole | 1.56 W AC-1 0.36 W AC-3 |
| Safety cover | With |
| Mounting support | Plate Rail |
| Standards | EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508 CSA C22.2 No 14 |
| Product certifications | BV CCC CSA DNV GL GOST RINA UL LROS |
| Connections - terminals | Control circuit: spring terminals 2 cable(s) 2.5 mm ² - cable stiffness: flexible - without cable end Control circuit: spring terminals 1 cable(s) 2.5 mm ² - cable stiffness: flexible - without cable end Power circuit: spring terminals 2 cable(s) 2.5 mm ² - cable stiffness: flexible - without cable end Power circuit: spring terminals 1 cable(s) 2.5 mm ² - cable stiffness: flexible - without cable end |
| Operating time | 4...19 ms opening 12...22 ms closing |
| Safety reliability level | B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1 |
| Mechanical durability | 15 Mcycles |
| Operating rate | 3600 cyc/h at ≤ 60 °C |

Complementary

| | |
|---------------------------------|--|
| Coil technology | Without built-in suppressor module |
| Control circuit voltage limits | 0.85...1.1 Uc at 60 °C operational 60 Hz 0.8...1.1 Uc at 60 °C operational 50 Hz 0.3...0.6 Uc at 60 °C drop-out 50/60 Hz |
| Inrush power in VA | 70 VA at 20 °C (cos φ 0.75) 50 Hz 70 VA at 20 °C (cos φ 0.75) 60 Hz |
| Hold-in power consumption in VA | 7 VA at 20 °C (cos φ 0.3) 50 Hz 7.5 VA at 20 °C (cos φ 0.3) 60 Hz |
| Heat dissipation | 2...3 W at 50/60 Hz |
| Auxiliary contacts type | Type mirror contact (1 NC) conforming to IEC 60947-4-1 Type mechanically linked (1 NO + 1 NC) conforming to IEC 60947-5-1 |
| Signalling circuit frequency | 25...400 Hz |
| Minimum switching current | 5 mA for signalling circuit |
| Minimum switching voltage | 17 V for signalling circuit |

| | |
|-----------------------|---|
| Non-overlap time | 1.5 ms on energisation (between NC and NO contact) 1.5 ms on de-energisation (between NC and NO contact) |
| Insulation resistance | > 10 MOhm for signalling circuit |

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 _c |
| 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 | Shocks contactor closed 15 Gn for 11 ms Shocks contactor open 10 Gn for 11 ms Vibrations contactor closed 4 Gn, 5...300 Hz Vibrations contactor open 2 Gn, 5...300 Hz |
| Height | 99 mm |
| Width | 45 mm |
| Depth | 86 mm |
| Product weight | 0.325 kg |

Contractual warranty

| | |
|--------|-----------|
| Period | 18 months |
|--------|-----------|