



ⓘ Discontinued

LC1D256ZD has not been replaced. Please contact your customer care center for more information.

Main

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| Range | TeSys |
| Product name | TeSys D |
| Product or component type | Contactor |
| Device short name | LC1D |
| Contactor application | Resistive load Motor control |
| Utilisation category | AC-3 AC-1 |
| 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 | 25 A (<= 60 °C) at <= 440 V AC AC-3 for power circuit 40 A (<= 60 °C) at <= 440 V AC AC-1 for power circuit |
| Motor power kW | 11 kW at 380...400 V AC 50/60 Hz 15 kW at 500 V AC 50/60 Hz 15 kW at 660...690 V AC 50/60 Hz 5.5 kW at 220...230 V AC 50/60 Hz 11 kW at 415...440 V AC 50/60 Hz |
| Motor power HP (UL / CSA) | 2 hp at 115 V AC 50/60 Hz for 1 phase motors 7.5 hp at 200/208 V AC 50/60 Hz for 3 phases motors 3 hp at 230/240 V AC 50/60 Hz for 1 phase motors 7.5 hp at 230/240 V AC 50/60 Hz for 3 phases motors 15 hp at 460/480 V AC 50/60 Hz for 3 phases motors 20 hp at 575/600 V AC 50/60 Hz for 3 phases motors |
| Control circuit type | DC standard |
| [Uc] control circuit voltage | 20 V DC |
| Auxiliary contact composition | 1 NO + 1 NC |
| [Uimp] rated impulse withstand voltage | 6 kV conforming to IEC 60947 |
| Overtoltage category | III |
| [Ith] conventional free air thermal current | 40 A at <= 60 °C for power circuit 10 A at <= 60 °C for signalling circuit |
| Irms rated making capacity | 450 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 | 450 A at 440 V for power circuit conforming to IEC 60947 |
| [Icw] rated short-time withstand current | 120 A <= 40 °C 1 min power circuit |

Disclaimer: 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

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| | <p>240 A <= 40 °C 10 s power circuit 380 A <= 40 °C 1 s power circuit 50 A <= 40 °C 10 min power circuit 100 A 1 s signalling circuit 120 A 500 ms signalling circuit 140 A 100 ms signalling circuit</p> |
| Associated fuse rating | <p>40 A gG at <= 690 V coordination type 2 for power circuit 63 A gG at <= 690 V coordination type 1 for power circuit 10 A gG for signalling circuit conforming to IEC 60947-5-1</p> |
| Average impedance | 2 mOhm at 50 Hz - lth 40 A for power circuit |
| [U] rated insulation voltage | <p>600 V for power circuit certifications CSA 600 V for power circuit certifications UL 690 V for power circuit conforming to IEC 60947-4-1 690 V for signalling circuit conforming to IEC 60947-1 600 V for signalling circuit certifications CSA 600 V for signalling circuit certifications UL</p> |
| Electrical durability | <p>1.65 Mcycles 25 A AC-3 at Ue <= 440 V 1.4 Mcycles 40 A AC-1 at Ue <= 440 V</p> |
| Power dissipation per pole | <p>3.2 W AC-1 1.25 W AC-3</p> |
| Safety cover | With |
| Mounting support | <p>Plate Rail</p> |
| Standards | <p>CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508</p> |
| Product certifications | <p>GOST RINA LROS (Lloyds register of shipping) DNV BV GL CSA UL CCC</p> |
| Connections - terminals | <p>Control circuit : lugs-ring terminals - external diameter: 8 mm Power circuit : lugs-ring terminals - external diameter: 10 mm</p> |
| Tightening torque | <p>Control circuit : 1.7 N.m - on lugs-ring terminals - with screwdriver flat Ø 6 mm screw : M3.5 Control circuit : 1.7 N.m - on lugs-ring terminals - with screwdriver Philips No 2 screw : M3.5 Power circuit : 2.5 N.m - on lugs-ring terminals - with screwdriver flat Ø 8 mm screw : M4 Power circuit : 2.5 N.m - on lugs-ring terminals - with screwdriver Philips No 2 screw : M4</p> |
| Operating time | <p>53.55...72.45 ms closing 16...24 ms opening</p> |
| Safety reliability level | <p>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</p> |
| Mechanical durability | 30 Mcycles |
| Operating rate | 3600 cyc/h at <= 60 °C |

Complementary

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| Coil technology | Built-in bidirectional peak limiting diode suppressor |
| Control circuit voltage limits | <p>0.1...0.25 Uc drop-out at 60 °C, DC 0.7...1.25 Uc operational at 60 °C, DC</p> |
| Time constant | 28 ms |
| Inrush power in W | 5.4 W at 20 °C |
| Hold-in power consumption in W | 5.4 W at 20 °C |
| Auxiliary contacts type | <p>Type mechanically linked (1 NO + 1 NC) conforming to IEC 60947-5-1 Type mirror contact (1 NC) conforming to IEC 60947-4-1</p> |
| 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

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| Insulation resistance | > 10 MOhm for signalling circuit |
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Environment

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| IP degree of protection | IP20 front face conforming to IEC 60529 |
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| Protective treatment | TH conforming to IEC 60068-2-30 |
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| Pollution degree | 3 |
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| Ambient air temperature for operation | -5...60 °C |
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| Ambient air temperature for storage | -60...80 °C |
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| Permissible ambient air temperature around the device | -40...70 °C at Uc |
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| Operating altitude | 3000 m without derating |
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| Fire resistance | 850 °C conforming to IEC 60695-2-1 |
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| 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 closed 15 Gn for 11 ms Shocks contactor open 8 Gn for 11 ms |
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| Height | 85 mm |
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| Width | 45 mm |
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| Depth | 101 mm |
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| Product weight | 0.53 kg |
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Contractual warranty

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| Warranty period | 18 months |
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