# Fisa tehnica produs
## Caracteristici

# LC1D38E7
TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 38 A - 48 V AC coil

Informatiile furnizate in aceasta documentatie contin descrieri generale si/sau caracteristici tehnice a performantelor produselor continute in acest document.
Aceasta documentatie nu este conceputa ca un substitut si nu trebuie utilizata pentru stabilirea corectitudinii alegerii sau fiabilitatea acestor produse pentru aplicatii specifice utilizatorului.
Este de datoria utilizatorului sau a integratorului pentru efectuarea analizei adecvate si complete a riscurilor, evaluarea si testarea produselor in ceea ce prive?te aplicatia specifica relevanta sau utilizarea acestora.
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## Main

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|---|---|
| Commercial Status | Commercialised |
| Range of product | TeSys D |
| Product or component type | Contactor |
| Device short name | LC1D |
| Contactor application | Motor control<br>Resistive load |
| Utilisation category | AC-1<br>AC-3 |
| Poles description | 3P |
| Power pole contact composition | 3 NO |
| [Ue] rated operational voltage | <= 300 V DC for power circuit<br><= 690 V AC 25...400 Hz for power circuit |
| [Ie] rated operational current | 38 A (<= 60 °C) at <= 440 V AC AC-3 for power circuit<br>50 A (<= 60 °C) at <= 440 V AC AC-1 for power circuit |
| Motor power kW | 18.5 kW at 415...440 V AC 50/60 Hz<br>9 kW at 220...230 V AC 50/60 Hz<br>18.5 kW at 660...690 V AC 50/60 Hz<br>18.5 kW at 500 V AC 50/60 Hz<br>18.5 kW at 380...400 V AC 50/60 Hz |
| Motor power HP (UL / CSA) | 25 hp at 600 V AC 50/60 Hz for 3 phases motors<br>20 hp at 480 V AC 50/60 Hz for 3 phases motors<br>5 hp at 240 V AC 50/60 Hz for 1 phase motors<br>10 hp at 200/208 V AC 50/60 Hz for 3 phases motors<br>10 hp at 230/240 V AC 50/60 Hz for 3 phases motors |
| Control circuit type | AC 50/60 Hz |
| Control circuit voltage | 48 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 | 50 A at <= 60 °C for power circuit<br>10 A at <= 60 °C for signalling circuit |
| Irms rated making capacity | 550 A at 440 V for power circuit conforming to IEC 60947<br>250 A DC for signalling circuit conforming to IEC 60947-5-1<br>140 A AC for signalling circuit conforming to IEC 60947-5-1 |
| Rated breaking capacity | 550 A at 440 V for power circuit conforming to IEC 60947 |
| [Icw] rated short-time withstand current | 310 A <= 40 °C 10 s power circuit<br>150 A <= 40 °C 1 min power circuit<br>430 A <= 40 °C 1 s power circuit<br>60 A <= 40 °C 10 min power circuit<br>140 A 100 ms signalling circuit<br>120 A 500 ms signalling circuit<br>100 A 1 s signalling circuit |
| Associated fuse rating | 63 A gG at <= 690 V coordination type 2 for power circuit<br>63 A gG at <= 690 V coordination type 1 for power circuit<br>10 A gG for signalling circuit conforming to IEC 60947-5-1 |
| Average impedance | 2 mOhm at 50 Hz - Ith 50 A for power circuit |

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| [Ui] rated insulation voltage | 600 V for signalling circuit certifications UL<br>600 V for signalling circuit certifications CSA<br>690 V for signalling circuit conforming to IEC 60947-1<br>600 V for power circuit certifications UL<br>600 V for power circuit certifications CSA<br>690 V for power circuit conforming to IEC 60947-4-1 |
| Electrical durability | 1.4 Mcycles 38 A AC-3 at Ue <= 440 V<br>1.4 Mcycles 50 A AC-1 at Ue <= 440 V |
| Power dissipation per pole | 3 W AC-3<br>5 W AC-1 |
| Safety cover | With |
| 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 |
| Connections - terminals | Power circuit: screw clamp terminals 2 cable(s) 2.5...10 mm² - cable stiffness: solid - without cable end<br>Power circuit: screw clamp terminals 1 cable(s) 1.5...10 mm² - cable stiffness: solid - without cable end<br>Power circuit: screw clamp terminals 2 cable(s) 1.5...6 mm² - cable stiffness: flexible - with cable end<br>Power circuit: screw clamp terminals 1 cable(s) 1...10 mm² - cable stiffness: flexible - with cable end<br>Power circuit: screw clamp terminals 2 cable(s) 2.5...10 mm² - cable stiffness: flexible - without cable end<br>Power circuit: screw clamp terminals 1 cable(s) 2.5...10 mm² - cable stiffness: flexible - without cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...4 mm² - cable stiffness: solid - without cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1...4 mm² - cable stiffness: solid - without cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm² - cable stiffness: flexible - with cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1...4 mm² - cable stiffness: flexible - with cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...4 mm² - cable stiffness: flexible - without cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1...4 mm² - cable stiffness: flexible - without cable end |
| Tightening torque | Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver Philips No 2<br>Power circuit: 2.5 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>Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm |
| Operating time | 12...22 ms closing<br>4...19 ms opening |
| Safety reliability level | B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1<br>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

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| Coil technology | Without built-in suppressor module |
| Control circuit voltage limits | 0.85...1.1 Uc at 60 °C operational 60 Hz<br>0.8...1.1 Uc at 60 °C operational 50 Hz<br>0.3...0.6 Uc at 60 °C drop-out 50/60 Hz |
| Inrush power in VA | 70 VA at 20 °C (cos ? 0.75) 50 Hz<br>70 VA at 20 °C (cos ? 0.75) 60 Hz |
| Hold-in power consumption in VA | 7 VA at 20 °C (cos ? 0.3) 50 Hz<br>7.5 VA at 20 °C (cos ? 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<br>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)<br>1.5 ms on de-energisation (between NC and NO contact) |
| Insulation resistance | > 10 MOhm for signalling circuit |

## Environment

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| 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 Uc |
| 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 open 8 Gn for 11 ms<br>Shocks contactor closed 15 Gn for 11 ms<br>Vibrations contactor closed 4 Gn, 5...300 Hz<br>Vibrations contactor open 2 Gn, 5...300 Hz |
| Height | 85 mm |
| Width | 45 mm |
| Depth | 92 mm |
| Product weight | 0.38 kg |

## Offer Sustainability

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| Sustainable offer status | Green Premium product |
| RoHS | Compliant - since 0627 - Schneider Electric declaration of conformity |
| REACh | Reference not containing SVHC above the threshold |
| Product environmental profile | Available |
| Product end of life instructions | Need no specific recycling operations |

## Contractual warranty

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| Period | 18 months |