# Product datasheet

Specifications

## TeSys D contactor - 4P(4 NO) - AC-1 - <= 440 V 32 A - 110 V DC standard coil

LC1DT32FD

## Main

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|---|---|
| **Range** | TeSys |
| **Range of product** | TeSys Deca |
| **Product or component type** | Contactor |
| **Device short name** | LC1D |
| **contactor application** | Resistive load |
| **Utilisation category** | AC-1<br>AC-3<br>AC-3e<br>AC-4 |
| **poles description** | 4P |
| **[Ue] rated operational voltage** | Power circuit: <= 690 V AC 25...400 Hz<br>Power circuit: <= 300 V DC |
| **[Ie] rated operational current** | 32 A (at <60 °C) at <= 440 V AC AC-1 for power circuit |
| **[Uc] control circuit voltage** | 110 V DC |

## Complementary

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|---|---|
| **Compatibility code** | LC1D |
| **Pole contact composition** | 4 NO |
| **Protective cover** | With |
| **[Ith] conventional free air thermal current** | 10 A (at 60 °C) for signalling circuit<br>32 A (at 60 °C) for power circuit |
| **Irms rated making capacity** | 140 A AC for signalling circuit conforming to IEC 60947-5-1<br>250 A DC for signalling circuit conforming to IEC 60947-5-1<br>300 A at 440 V for power circuit conforming to IEC 60947 |
| **Rated breaking capacity** | 300 A at 440 V for power circuit conforming to IEC 60947 |
| **[Icw] rated short-time withstand current** | 40 A 40 °C - 10 min for power circuit<br>84 A 40 °C - 1 min for power circuit<br>145 A 40 °C - 10 s for power circuit<br>240 A 40 °C - 1 s for power circuit<br>100 A - 1 s for signalling circuit<br>120 A - 500 ms for signalling circuit<br>140 A - 100 ms for signalling circuit |
| **Associated fuse rating** | 10 A gG for signalling circuit conforming to IEC 60947-5-1<br>50 A gG at <= 690 V coordination type 1 for power circuit<br>35 A gG at <= 690 V coordination type 2 for power circuit |
| **Average impedance** | 2.5 mOhm - Ith 32 A 50 Hz for power circuit |
| **Power dissipation per pole** | 2.5 W AC-1 |

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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|---|---|
| **[Ui] rated insulation voltage** | Power circuit: 600 V CSA certified<br>Power circuit: 600 V UL certified<br>Signalling circuit: 690 V conforming to IEC 60947-1<br>Signalling circuit: 600 V CSA certified<br>Signalling circuit: 600 V UL certified<br>Power circuit: 690 V conforming to IEC 60947-4-1 |
| **Overvoltage category** | III |
| **Pollution degree** | 3 |
| **[Uimp] rated impulse withstand voltage** | 6 kV conforming to IEC 60947 |
| **Safety reliability level** | B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 |
| **Mechanical durability** | 30 Mcycles |
| **Electrical durability** | 1 Mcycles 32 A AC-1 at Ue <= 440 V |
| **Control circuit type** | DC standard |
| **Coil technology** | Built-in bidirectional peak limiting diode suppressor |
| **Control circuit voltage limits** | 0.1...0.25 Uc (-40…70 °C):drop-out DC<br>0.7...1.25 Uc (-40…60 °C):operational DC<br>1...1.25 Uc (60…70 °C):operational DC |
| **Inrush power in W** | 5.4 W (at 20 °C) |
| **Hold-in power consumption in W** | 5.4 W at 20 °C |
| **Operating time** | 20 ±20 % ms opening<br>63 ±15 % ms closing |
| **Time constant** | 28 ms |
| **Maximum operating rate** | 3600 cyc/h 60 °C |
| **Connections - terminals** | Control circuit: screw clamp terminals 2 1…2.5 mm² - cable stiffness: flexible with cable end<br>Control circuit: screw clamp terminals 1 1…4 mm² - cable stiffness: flexible without cable end<br>Control circuit: screw clamp terminals 2 1…4 mm² - cable stiffness: flexible without cable end<br>Control circuit: screw clamp terminals 1 1…4 mm² - cable stiffness: flexible with cable end<br>Control circuit: screw clamp terminals 1 1…4 mm² - cable stiffness: solid without cable end<br>Control circuit: screw clamp terminals 2 1…4 mm² - cable stiffness: solid without cable end<br>Power circuit: screw clamp terminals 1 2.5…10 mm² - cable stiffness: flexible without cable end<br>Power circuit: screw clamp terminals 2 2.5…10 mm² - cable stiffness: flexible without cable end<br>Power circuit: screw clamp terminals 1 2.5…10 mm² - cable stiffness: flexible with cable end<br>Power circuit: screw clamp terminals 2 2.5…10 mm² - cable stiffness: flexible with cable end<br>Power circuit: screw clamp terminals 1 2.5…16 mm² - cable stiffness: solid without cable end<br>Power circuit: screw clamp terminals 2 2.5…16 mm² - cable stiffness: solid without cable end |
| **Tightening torque** | Control circuit: 1.7 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 pozidriv No 2<br>Power circuit: 1.8 N.m - on screw clamps terminals - with screwdriver flat Ø 6 mm<br>Power circuit: 1.8 N.m - on screw clamps terminals - with screwdriver Philips No 2<br>Power circuit: 1.8 N.m - on screw clamps 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<br>type mirror contact 1 NC conforming to IEC 60947-4-1 |
| **Signalling circuit frequency** | 25...400 Hz |
| **Minimum switching voltage** | 17 V for signalling circuit |

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|---|---|
| **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<br>1.5 ms on energisation between NC and NO contact |
| **Mounting support** | Plate<br>Rail |

# Environment

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|---|---|
| **Standards** | CSA C22.2 No 14<br>EN 60947-4-1<br>EN 60947-5-1<br>IEC 60947-4-1<br>IEC 60947-5-1<br>UL 508 |
| **Product certifications** | DNV<br>GL<br>CCC<br>LROS (Lloyds register of shipping)<br>RINA<br>BV<br>GOST<br>UL<br>CSA<br>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<br>conforming to IEC 60947-1 Annex Q category D exposure to damp heat |
| **Permissible ambient air temperature around the device** | -40…60 °C<br>60…70 °C with derating |
| **Operating altitude** | 0...3000 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, 5...300 Hz)<br>Vibrations contactor closed (4 Gn, 5...300 Hz)<br>Shocks contactor closed (15 Gn for 11 ms)<br>Shocks contactor open (8 Gn for 11 ms) |
| **Height** | 91 mm |
| **Width** | 45 mm |
| **Depth** | 107 mm |
| **Net weight** | 0.425 kg |

# Packing Units

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|---|---|
| **Unit Type of Package 1** | PCE |
| **Number of Units in Package 1** | 1 |
| **Package 1 Height** | 4.9 cm |
| **Package 1 Width** | 11.1 cm |
| **Package 1 Length** | 8.9 cm |
| **Package 1 Weight** | 424 g |

# Contractual warranty

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|---|---|
| **Warranty** | 18 months |

## Sustainability

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Transparency RoHS/REACh

## Well-being performance

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|---|---|
| Mercury Free | |
| Rohs Exemption Information | Yes |
| Pvc Free | |

## Certifications & Standards

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| **Reach Regulation** | REACh Declaration |
| **Eu Rohs Directive** | Compliant with Exemptions |
| **China Rohs Regulation** | China RoHS declaration<br>Product out of China RoHS scope. Substance declaration for your information |
| **Environmental Disclosure** | Product Environmental Profile |
| **Circularity Profile** | End of Life Information |