# Product data sheet
## Characteristics

# LC1D096FLS207
Contactor, Tesys Deca, railway S207, 3P(3NO), AC-3/AC-3e, 9A, <=440V, 110V DC low consumption coil, lugs-ring terminals




## Main

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|---|---|
| Range | TeSys<br>TeSys Deca |
| Range of product | TeSys Deca Advanced |
| Product or component type | Contactor |
| Device short name | LC1D |
| Contactor application | Motor control<br>Resistive load |
| Utilisation category | AC-1<br>AC-3<br>AC-3e |
| Poles description | 3P |
| [Ue] rated operational voltage | Power circuit: <= 690 V AC 25...400 Hz |
| [Ie] rated operational current | 9 A (at <60 °C) at <= 440 V AC AC-3 for power circuit<br>25 A (at <60 °C) at <= 440 V AC AC-1 for power circuit<br>9 A (at <60 °C) at <= 440 V AC AC-3e for power circuit |

## Complementary

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| Motor power kW | 2.2 KW at 220/230 V AC 50 Hz (AC-3)<br>4 KW at 380/400 V AC 50 Hz (AC-3)<br>4 KW at 415 V AC 50 Hz (AC-3)<br>4 KW at 440 V AC 50 Hz (AC-3)<br>5.5 KW at 500 V AC 50 Hz (AC-3)<br>5.5 KW at 660/690 V AC 50 Hz (AC-3)<br>2.2 KW at 220/230 V AC 50 Hz (AC-3e)<br>4 KW at 380/400 V AC 50 Hz (AC-3e)<br>4 KW at 415 V AC 50 Hz (AC-3e)<br>4 KW at 440 V AC 50 Hz (AC-3e)<br>5.5 KW at 500 V AC 50 Hz (AC-3e)<br>5.5 KW at 660/690 V AC 50 Hz (AC-3e) |
| Pole contact composition | 3 NO |
| Protective cover | With |
| 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 |
| Auxiliary contact composition | 1 NO + 1 NC |
| [Ui] rated insulation voltage | Power circuit: 690 V conforming to IEC 60947-4-1<br>Signalling circuit: 690 V conforming to IEC 60947-1 |
| [Uimp] rated impulse withstand voltage | 6 KV conforming to IEC 60947 |
| Overvoltage category | III |
| [Ith] conventional free air thermal current | 10 A (at 60 °C) for signalling circuit<br>25 A (at 60 °C) for power circuit |

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|---|---|
| Irms rated making capacity | 250 A at 440 V for power circuit conforming to IEC 60947<br>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 |
| Rated breaking capacity | 250 A at 440 V for power circuit conforming to IEC 60947 |
| Associated fuse rating | 10 A gG for signalling circuit conforming to IEC 60947-5-1<br>25 A gG at <= 690 V coordination type 1 for power circuit<br>20 A gG at <= 690 V coordination type 2 for power circuit |
| Time constant | 37 Ms |
| Control circuit type | DC low consumption |
| Coil technology | With integral suppression device |
| Control circuit voltage limits | 0.1...0.25 Uc (-40…70 °C):drop-out DC<br>0.7...1.25 Uc (-40…70 °C):operational DC |
| Average impedance | 2.5 MOhm - Ith 25 A 50 Hz for power circuit |
| Power dissipation per pole | 1.56 W AC-1<br>0.2 W AC-3<br>0.2 W AC-3e |
| Minimum switching current | 5 MA for signalling circuit |
| Minimum switching voltage | 17 V 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 |
| Operating time | 77 ±15 % ms closing<br>25 ±20 % ms opening |
| Maximum operating rate | 3600 Cyc/H 60 °C |
| Inrush power in W | 4 W (at 20 °C) |
| Hold-in power consumption in W | 4 W at 20 °C |
| Insulation resistance | > 10 MOhm for signalling circuit |
| Connections - terminals | Control circuit: lugs-ring terminals - external diameter: 8 mm<br>Power circuit: lugs-ring terminals - external diameter: 9.5 mm |
| Tightening torque | Control circuit: 1.7 N.m - on lugs-ring terminals - with screwdriver flat Ø 6 mm M3.5<br>Control circuit: 1.7 N.m - on lugs-ring terminals - with screwdriver Philips No 2 M3.5<br>Power circuit: 1.7 N.m - on lugs-ring terminals - with screwdriver Philips No 2 M3.5<br>Power circuit: 1.7 N.m - on lugs-ring terminals - with screwdriver flat Ø 6 mm M3.5<br>Control circuit: 1.7 N.m - on lugs-ring terminals - with screwdriver pozidriv No 2 M3.5<br>Power circuit: 1.7 N.m - on lugs-ring terminals - with screwdriver pozidriv No 2 M3.5 |
| Mounting support | Rail<br>Plate |
| Electrical durability | 0.6 Mcycles 25 A AC-1 at Ue <= 440 V<br>2 Mcycles 9 A AC-3 at Ue <= 440 V<br>2 Mcycles 9 A AC-3e at Ue <= 440 V |
| Mechanical durability | 30 Mcycles |
| 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 |
| Operating altitude | 0...3000 m |
| Compatibility code | LC1D |
| Standards | EN/IEC 60947-4-1<br>EN/IEC 60947-5-1<br>EN 45545: R22 HL3<br>EN 45545: R26 HL3<br>DIN 5510-2 |
| Product certifications | IEC[RETURN]CCC[RETURN]EAC[RETURN]UA[RETURN]TR[RETURN]UKCA[RETURN]CB |

## Environment

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|---|---|
| Climatic withstand | Conforming to IACS E10<br>conforming to IEC 60947-1 Annex Q category D |
| Ambient air temperature for storage | -60…80 °C |
| Fire resistance | 850 °C conforming to IEC 60695-2-1 |
| Height | 77 Mm |
| Width | 45 Mm |
| Depth | 95 Mm |
| Net weight | 0.32 Kg |
| Mechanical robustness | Vibrations contactor open (2 Gn, 5...300 Hz)<br>Vibrations contactor closed (4 Gn, 5...300 Hz)<br>Shocks contactor open (10 Gn for 11 ms)<br>Shocks contactor closed (15 Gn for 11 ms) |

## Packing Units

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|---|---|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Height | 5.5 Cm |
| Package 1 Width | 9.5 Cm |
| Package 1 Length | 12.0 Cm |
| Package 1 Weight | 534.0 G |
| Unit Type of Package 2 | S02 |
| Number of Units in Package 2 | 15 |
| Package 2 Height | 15.0 Cm |
| Package 2 Width | 30.0 Cm |
| Package 2 Length | 40.0 Cm |
| Package 2 Weight | 8.258 Kg |
| Unit Type of Package 3 | P06 |
| Number of Units in Package 3 | 240 |
| Package 3 Height | 75.0 Cm |
| Package 3 Width | 80.0 Cm |
| Package 3 Length | 60.0 Cm |
| Package 3 Weight | 140.128 Kg |

## Offer Sustainability

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| Recyclability potential, in % | 73 |
| Total lifecycle Carbon footprint | 20 kg CO2 eq. |
| Carbon footprint of the manufacturing phase [A1 to A3] | 2.8213407946325786 |
| Carbon footprint of the manufacturing phase [A1 to A3] | 3 kg CO2 eq. |
| Carbon footprint of the distribution phase [A4] | 0.9529548881344351 |
| Carbon footprint of the distribution phase [A4] | 1 kg CO2 eq. |
| Carbon footprint of the installation phase [A5] | 0.03153297541368215 |
| Carbon footprint of the installation phase [A5] | 0 kg CO2 eq. |
| Carbon footprint of the use phase [B2, B3, B4, B6] | 14.924864966718363 |
| Carbon footprint of the use phase [B2, B3, B4, B6] | 15 kg CO2 eq. |
| Mercury free | Yes |
| Sustainable packaging | Yes |
| Carbon footprint of the end-of-life phase [C1 to C4] | 1.208204740755529 |
| Carbon footprint of the end-of-life phase [C1 to C4] | 1 kg CO2 eq. |
| Environmental Disclosure | Product Environmental Profile |
| Total lifecycle Carbon footprint | 20 |
| Packaging made with recycled cardboard | Yes |
| Packaging without single use plastic | Yes |
| SCIP Number | 4be95b29-a1a6-4998-9661-e1893f5e4a16 |
| REACh Regulation | Reference contains Substances of Very High Concern above the threshold |
| EU RoHS Directive | Compliant By Exemption |
| PVC free | Yes |
| End of life manual availability | No need of specific recycling operations |
| Take-back | No |
| WEEE Label | The product must be disposed on European Union markets following specific waste collection a |

## Contractual warranty

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|---|---|
| Warranty (in months) | 18 |

Product Life Status : Commercialised