# Product data sheet
## Characteristics

# LC1D95P7S335
## TeSys D contactor S335 - 3P (3NO) AC-3 <= 440V 95A - 230V AC coil

## Main

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| Range | TeSys |
| Product name | TeSys D |
| Product or component type | Contactor |
| Device short name | LC1D |
| Contactor application | Resistive load<br>Motor control |
| Utilisation category | AC-1<br>AC-3 |
| Poles description | 3P |
| Power pole contact composition | 3 NO |
| [Ue] rated operational voltage | Power circuit: <= 1000 V AC 25...400 Hz |
| [Ie] rated operational current | 125 A (at <60 °C) at <= 440 V AC AC-1 for power circuit<br>95 A (at <60 °C) at <= 440 V AC AC-3 for power circuit |
| Motor power kW | 25 kW at 220/230 V AC 50 Hz (AC-3)<br>45 kW at 380/400 V AC 50 Hz (AC-3)<br>45 kW at 415 V AC 50 Hz (AC-3)<br>45 kW at 440 V AC 50 Hz (AC-3)<br>55 kW at 500 V AC 50 Hz (AC-3)<br>45 kW at 660/690 V AC 50 Hz (AC-3)<br>45 kW at 1000 V AC 50 Hz (AC-3) |
| Motor power HP (UL / CSA) | 20 hp at 200/208 V AC 60 Hz for 3 phases motors<br>7.5 hp at 115 V AC 60 Hz for 1 phase motors<br>15 hp at 230/240 V AC 60 Hz for 1 phase motors<br>25 hp at 230/240 V AC 60 Hz for 3 phases motors<br>60 hp at 460/480 V AC 60 Hz for 3 phases motors<br>60 hp at 575/600 V AC 60 Hz for 3 phases motors |
| [Uc] control circuit voltage | 230 V AC 50/60 Hz |
| Auxiliary contact composition | 1 NO + 1 NC |
| [Uimp] rated impulse withstand voltage | 8 kV conforming to IEC 60947 |
| Overvoltage category | III |
| [Ith] conventional free air thermal current | 125 A (at 60 °C) for power circuit<br>10 A (at 60 °C) for signalling 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>1100 A at 440 V AC for power circuit conforming to IEC 60947 |
| Rated breaking capacity | 1100 A at 440 V for power circuit conforming to IEC 60947 |
| [Icw] rated short-time withstand current | 135 A 40 °C - 10 min for power circuit |

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| | 100 A - 1 s for signalling circuit<br>120 A - 500 ms for signalling circuit<br>140 A - 100 ms for signalling circuit<br>1100 A 40 °C - 1 s for power circuit<br>400 A 40 °C - 1 min for power circuit<br>800 A 40 °C - 10 s for power circuit |
| Associated fuse rating | 200 A gG at <= 690 V coordination type 1 for power circuit<br>160 A gG at <= 690 V coordination type 2 for power circuit<br>10 A gG for signalling circuit conforming to IEC 60947-5-1 |
| Average impedance | 0.8 mOhm - Ith 125 A 50 Hz for power circuit |
| [Ui] rated insulation voltage | Power circuit: 1000 V conforming to IEC 60947-4-1<br>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 |
| Electrical durability | 1.2 Mcycles 95 A AC-3 at Ue <= 440 V<br>1.3 Mcycles 125 A AC-1 at Ue <= 440 V |
| Power dissipation per pole | 12.5 W AC-1<br>7.2 W AC-3 |
| Safety cover | With |
| Mounting support | Rail<br>Plate |
| Standards | EN/IEC 60947-4-1<br>EN/IEC 60947-5-1<br>UL 60947-4-1<br>CSA C22.2 No 60947-4-1<br>EN 60335-1 |
| Product certifications | IEC<br>UL<br>CSA<br>CCC |
| Connections - terminals | Control circuit: screw clamp terminals 2 cable(s) 1…4 mm²flexible without cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1…2.5 mm²flexible with cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1…4 mm²solid<br>Power circuit: screw connectors 1 cable(s) 4…50 mm²solid<br>Power circuit: screw connectors 2 cable(s) 4…25 mm²solid<br>Power circuit: screw connectors 1 cable(s) 4…50 mm²flexible with cable end<br>Power circuit: screw connectors 2 cable(s) 4…16 mm²flexible with cable end<br>Power circuit: screw connectors 1 cable(s) 4…50 mm²flexible without cable end<br>Power circuit: screw connectors 2 cable(s) 4…25 mm²flexible without cable end |
| Tightening torque | Power circuit: 9 N.m - on connector - with screwdriver flat Ø 6 to Ø 8 mm<br>Power circuit: 9 N.m - on connector hexagonal screw head 4 mm<br>Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm<br>Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver Philips No 2 |
| Operating time | 6...20 ms opening<br>20...35 ms closing |
| 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 | 4 Mcycles |
| Maximum operating rate | 3600 cyc/h 60 °C |

## Complementary

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| Coil technology | Without built-in suppressor module |
| Control circuit voltage limits | 0.85...1.1 Uc 55 °C operational AC 60 Hz<br>0.3...0.6 Uc 55 °C drop-out AC 50/60 Hz<br>0.8...1.1 Uc 55 °C operational AC 50 Hz |
| Inrush power in VA | 245 VA 50/60 Hz cos phi 0.75 (at 20 °C) |
| Hold-in power consumption in VA | 26 VA (at 20 °C) cos phi 0.3 50/60 Hz |
| Heat dissipation | 6…10 W at 50/60 Hz |
| 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 current | 5 mA for signalling circuit |

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

## Environment

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| IP degree of protection | IP20 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 |
| Fire resistance | 850 °C conforming to IEC 60695-2-1 |
| Flame retardance | V0 conforming to UL 94 |
| Mechanical robustness | Vibrations contactor open: 2 Gn, 5...300 Hz<br>Shocks contactor closed: 15 Gn for 11 ms<br>Vibrations contactor closed: 3 Gn, 5...300 Hz<br>Shocks contactor open: 8 Gn for 11 ms |
| Height | 127 mm |
| Width | 85 mm |
| Depth | 130 mm |
| Net weight | 1.61 kg |