

# Product data sheet

Specifications



contactor, TeSys Deca, 3P(3NO), AC-3/AC-3e, 440V, 95A, 230V AC 50/60Hz coil, screw clamp terminals

LC1D95P7

## Main

|                                |   |
|--------------------------------|---|
| Range                          | TeSys   |
| Range of product               | TeSys D   |
| Product or component type      | Contacteur  |
| Device short name              | LC1D  |
| Contacteur application         | Resistive load<br>Motor control   |
| Utilisation category           | AC-1<br>AC-4<br>AC-3<br>AC-3e   |
| Poles description              | 3P  |
| [Ue] rated operational voltage | Power circuit: 1000 V AC 25...400 Hz  |
| [Ie] rated operational current | 95 A (at <60 °C) at <= 440 V AC-3 for power circuit<br>125 A (at <60 °C) at <= 690 V AC-1 for power circuit<br>95 A (at <60 °C) at <= 440 V AC-3e for power circuit |
| [Uc] control circuit voltage   | 230 V AC 50/60 Hz   |

## Complementary

|   |   |
|---|---|
| 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...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                              | 7.5 hp at 120 V AC 60 Hz for 1 phase motors<br>15 hp at 230/240 V AC 60 Hz for 1 phase motors<br>30 hp at 200/208 V AC 60 Hz for 3 phases motors<br>30 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 |
| Compatibility code                          | LC1D  |
| Pole contact composition                    | 3 NO  |
| Contact compatibility                       | M11   |
| Protective cover                            | With  |
| [Ith] conventional free air thermal current | 10 A (at 60 °C) for signalling circuit<br>125 A (at 60 °C) for power circuit  |
| Irms rated making capacity                  | 1100 A at 440 V AC 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  |

|   |  |
|---|--|
| <b>Rated breaking capacity</b>                  | 1100 A at 440 V for power circuit conforming to IEC 60947  |
| <b>[Icw] rated short-time withstand current</b> | 1100 A 40 °C - 1 s for power circuit<br>800 A 40 °C - 10 s for power circuit<br>400 A 40 °C - 1 min for power circuit<br>135 A 40 °C - 10 min for power circuit<br>140 A - 100 ms for signalling circuit<br>120 A - 500 ms for signalling circuit<br>100 A - 1 s for signalling circuit  |
| <b>Associated fuse rating</b>                   | 10 A gG for signalling circuit conforming to IEC 60947-5-1<br>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   |
| <b>Average impedance</b>                        | 0.8 mOhm - Ith 125 A 50 Hz for power circuit   |
| <b>Power dissipation per pole</b>               | 12.5 W AC-1<br>7.2 W AC-3<br>7.2 W AC-3e   |
| <b>[Ui] rated insulation voltage</b>            | 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   |
| <b>Overvoltage category</b>                     | III  |
| <b>Pollution degree</b>                         | 3  |
| <b>[Uimp] rated impulse withstand voltage</b>   | 8 kV conforming to IEC 60947   |
| <b>Safety reliability level</b>                 | B10d = 1.3 Mcycles contactor with nominal load conforming to EN/ISO 13849-1<br>B10d = 20 Mcycles contactor with mechanical load conforming to EN/ISO 13849-1   |
| <b>Mechanical durability</b>                    | 4 Mcycles  |
| <b>Electrical durability</b>                    | 1.2 Mcycles 95 A AC-3<br>1.3 Mcycles 125 A AC-1<br>1.2 Mcycles 95 A AC-3e  |
| <b>Control circuit type</b>                     | AC at 50/60 Hz standard  |
| <b>Coil technology</b>                          | Without built-in suppressor module   |
| <b>Control circuit voltage limits</b>           | 0.8...1.1 Uc (-40...55 °C):operational AC 50 Hz<br>0.85...1.1 Uc (-40...55 °C):operational AC 60 Hz<br>0.3...0.6 Uc (-40...70 °C):drop-out AC 50/60 Hz<br>1...1.1 Uc (55...70 °C):operational AC 50/60 Hz  |
| <b>Inrush power in VA</b>                       | 245 VA 60 Hz cos phi 0.75 (at 20 °C)<br>245 VA 50 Hz cos phi 0.75 (at 20 °C)   |
| <b>Hold-in power consumption in VA</b>          | 26 VA 60 Hz cos phi 0.3 (at 20 °C)<br>26 VA 50 Hz cos phi 0.3 (at 20 °C)   |
| <b>Heat dissipation</b>                         | 6...10 W at 50/60 Hz   |
| <b>Operating time</b>                           | 20...35 ms closing<br>6...20 ms opening  |
| <b>Maximum operating rate</b>                   | 3600 cyc/h 60 °C   |
| <b>Connections - terminals</b>                  | Control circuit: screw clamp terminals 2 1...2.5 mm <sup>2</sup> - cable stiffness: flexible with cable end<br>Control circuit: screw clamp terminals 1 1...2.5 mm <sup>2</sup> - cable stiffness: flexible with cable end<br>Control circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: flexible without cable end<br>Control circuit: screw clamp terminals 2 1...4 mm <sup>2</sup> - cable stiffness: flexible without cable end<br>Control circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: solid without cable end<br>Control circuit: screw clamp terminals 2 1...4 mm <sup>2</sup> - cable stiffness: solid without cable end<br>Power circuit: connector 1 4...50 mm <sup>2</sup> - cable stiffness: flexible without cable end<br>Power circuit: connector 2 4...25 mm <sup>2</sup> - cable stiffness: flexible without cable end<br>Power circuit: connector 1 4...50 mm <sup>2</sup> - cable stiffness: flexible with cable end<br>Power circuit: connector 2 4...16 mm <sup>2</sup> - cable stiffness: flexible with cable end<br>Power circuit: connector 1 4...50 mm <sup>2</sup> - cable stiffness: solid without cable end<br>Power circuit: connector 2 4...25 mm <sup>2</sup> - cable stiffness: solid without cable end |
| <b>Tightening torque</b>                        | 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<br>Power circuit: 12 N.m - on connector - with screwdriver flat Ø 6 to Ø 8 mm<br>Power circuit: 12 N.m - on connector hexagonal screw head 4 mm<br>Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver pozidriv No 2  |
| <b>Auxiliary contact composition</b>            | 1 NO + 1 NC  |
| <b>Auxiliary contacts type</b>                  | 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   |

|                                     |   |
|-------------------------------------|---|
| <b>Signalling circuit frequency</b> | 25...400 Hz   |
| <b>Minimum switching voltage</b>    | 17 V for signalling circuit   |
| <b>Minimum switching current</b>    | 5 mA for signalling circuit   |
| <b>Insulation resistance</b>        | > 10 MOhm for signalling circuit  |
| <b>Non-overlap time</b>             | 1.5 ms on de-energisation between NC and NO contact<br>1.5 ms on energisation between NC and NO contact |
| <b>Mounting support</b>             | Plate<br>Rail   |

## Environment

|  |   |
|--|---|
| <b>Standards</b>   | EN/IEC 60947-1<br>EN/IEC 60947-4-1<br>EN/IEC 60947-5-1<br>UL 60947-4-1<br>UL 60947-5-1<br>CSA C22.2 No 60947-4-1<br>CSA C22.2 No 60947-5-1<br>GB/T 14048.4                            |
| <b>Product certifications</b>                                | IECEE CB Scheme<br>UL<br>CSA<br>CCC<br>EAC<br>LROS (Lloyds register of shipping)<br>RINA<br>BV<br>DNV-GL  |
| <b>IP degree of protection</b>                               | IP20 front face conforming to IEC 60529   |
| <b>Protective treatment</b>                                  | TH conforming to IEC 60068-2-30   |
| <b>Climatic withstand</b>                                    | conforming to IACS E10 exposure to damp heat  |
| <b>Permissible ambient air temperature around the device</b> | -40...60 °C<br>60...70 °C with derating   |
| <b>Operating altitude</b>                                    | 0...3000 m  |
| <b>Fire resistance</b>                                       | 850 °C conforming to IEC 60695-2-1  |
| <b>Flame retardance</b>                                      | V1 conforming to UL 94  |
| <b>Mechanical robustness</b>                                 | Vibrations contactor open (2 Gn, 5...300 Hz)<br>Shocks contactor open (8 Gn for 11 ms)<br>Vibrations contactor closed (3 Gn, 5...300 Hz)<br>Shocks contactor closed (10 Gn for 11 ms) |
| <b>Height</b>  | 127 mm  |
| <b>Width</b>   | 85 mm   |
| <b>Depth</b>   | 130 mm  |
| <b>Net weight</b>  | 1.61 kg   |

## Packing Units

|                                     |           |
|-------------------------------------|-----------|
| <b>Unit Type of Package 1</b>       | PCE       |
| <b>Number of Units in Package 1</b> | 1         |
| <b>Package 1 Height</b>             | 9.500 cm  |
| <b>Package 1 Width</b>              | 13.500 cm |
| <b>Package 1 Length</b>             | 14.000 cm |
| <b>Package 1 Weight</b>             | 1.569 kg  |
| <b>Unit Type of Package 2</b>       | S02       |
| <b>Number of Units in Package 2</b> | 5         |
| <b>Package 2 Height</b>             | 15.000 cm |
| <b>Package 2 Width</b>              | 30.000 cm |

|                              |            |
|------------------------------|------------|
| Package 2 Length             | 40.000 cm  |
| Package 2 Weight             | 8.089 kg   |
| Unit Type of Package 3       | P06        |
| Number of Units in Package 3 | 80         |
| Package 3 Height             | 75.000 cm  |
| Package 3 Width              | 80.000 cm  |
| Package 3 Length             | 60.000 cm  |
| Package 3 Weight             | 137.424 kg |

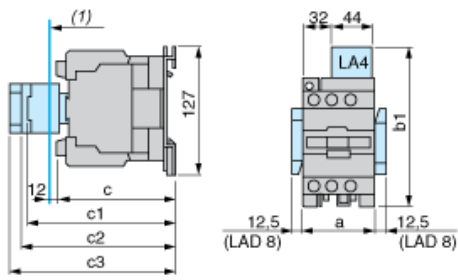
## Offer Sustainability

|                            |   |
|----------------------------|---|
| Sustainable offer status   | Green Premium product   |
| REACH Regulation           | <a href="#">REACH Declaration</a>   |
| REACH free of SVHC         | Yes   |
| EU RoHS Directive          | Compliant<br><a href="#">EU RoHS Declaration</a>  |
| Toxic heavy metal free     | Yes   |
| Mercury free               | Yes   |
| China RoHS Regulation      | <a href="#">China RoHS declaration</a><br>Pro-active China RoHS declaration (out of China RoHS legal scope)   |
| RoHS exemption information | <a href="#">Yes</a>   |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>   |
| WEEE                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins   |
| PVC free                   | Yes   |
| California proposition 65  | WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |

## Contractual warranty

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

**Dimensions**



(1) Minimum electrical clearance

| LC1       |                                    | D80 | D95 |
|-----------|------------------------------------|-----|-----|
| <b>a</b>  |                                    | 85  | 85  |
| <b>b1</b> | with LA4 D•2                       | 135 | 135 |
|           | with LA4 DB3 or LAD 4BB3           | 135 | –   |
|           | with LA4 DF, DT                    | 142 | 142 |
|           | with LA4 DM, DW, DL                | 150 | 150 |
| <b>c</b>  | without cover or add-on blocks     | 125 | 125 |
|           | with cover, without add-on blocks  | 130 | 130 |
| <b>c1</b> | with LAD N (1 contact)             | 150 | 150 |
|           | with LAD N or C (2 or 4 contacts)  | 158 | 158 |
| <b>c2</b> | with LA6 DK10, LAD 6DK             | 170 | 170 |
| <b>c3</b> | with LAD T, R, S                   | 178 | 178 |
|           | with LAD T, R, S and sealing cover | 182 | 182 |

**Wiring**

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**Recommended replacement(s)**