



### 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<br>Motor control  |
| Utilisation category           | AC-3<br>AC-3e<br>AC-4<br>AC-1  |
| Poles description              | 3P   |
| [Ue] rated operational voltage | Power circuit: ≤ 690 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>15 kW at 400 V AC 50 Hz (AC-4)<br>25 kW at 220...230 V AC 50 Hz (AC-3e)<br>45 kW at 380...400 V AC 50 Hz (AC-3e)<br>45 kW at 415...440 V AC 50 Hz (AC-3e)<br>55 kW at 500 V AC 50 Hz (AC-3e)<br>45 kW at 660...690 V AC 50 Hz (AC-3e) |
| 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  |
| Rated breaking capacity                     | 1100 A at 440 V for power circuit conforming to IEC 60947   |
| [Icw] rated short-time withstand current    | 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   |

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| Associated fuse rating                 | 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   |
| Average impedance                      | 0.8 mOhm - Ith 125 A 50 Hz for power circuit   |
| Power dissipation per pole             | 12.5 W AC-1<br>7.2 W AC-3<br>7.2 W AC-3e   |
| [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   |
| Overvoltage category                   | III  |
| Pollution degree                       | 3  |
| [Uimp] rated impulse withstand voltage | 8 kV conforming to IEC 60947   |
| Safety reliability level               | 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   |
| Mechanical durability                  | 4 Mcycles  |
| Electrical durability                  | 1.2 Mcycles 95 A AC-3<br>1.3 Mcycles 125 A AC-1<br>1.2 Mcycles 95 A AC-3e  |
| Control circuit type                   | AC at 50/60 Hz   |
| Coil technology                        | Without built-in suppressor module   |
| Control circuit voltage limits         | 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  |
| Inrush power in VA                     | 245 VA 60 Hz cos phi 0.75 (at 20 °C)<br>245 VA 50 Hz cos phi 0.75 (at 20 °C)   |
| Hold-in power consumption in VA        | 26 VA 60 Hz cos phi 0.3 (at 20 °C)<br>26 VA 50 Hz cos phi 0.3 (at 20 °C)   |
| Heat dissipation                       | 6...10 W at 50/60 Hz   |
| Operating time                         | 20...35 ms closing<br>6...20 ms opening  |
| Maximum operating rate                 | 3600 cyc/h 60 °C   |
| Connections - terminals                | Control circuit: lugs-ring terminals - external diameter: 8 mm<br>Power circuit: bars 1 - busbar cross section: 3 x 16 mm<br>Power circuit: lugs-ring terminals - external diameter: 17 mm   |
| Tightening torque                      | Control circuit: 1.2 N.m - on lugs-ring terminals - with screwdriver flat Ø 6 mm M3.5<br>Control circuit: 1.2 N.m - on lugs-ring terminals - with screwdriver Philips No 2 M3.5<br>Power circuit: 5 N.m - on lugs-ring terminals - with screwdriver flat Ø 8 mm M6<br>Power circuit: 5 N.m - on lugs-ring terminals hexagonal screw head 10 mm M6<br>Power circuit: 5 N.m - on bars - with screwdriver flat Ø 8 mm M6<br>Power circuit: 5 N.m - on bars hexagonal screw head 10 mm M6<br>Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver pozidriv No 2 M3.5 |
| 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  |
| 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                       | Rail<br>Plate  |






## Environment

|   |   |
|---|---|
| Standards   | 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                            |
| Product certifications                                | IECEE CB Scheme<br>UL<br>CSA<br>CCC<br>EAC<br>LROS (Lloyds register of shipping)<br>RINA<br>BV<br>DNV-GL  |
| 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  |
| 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>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) |
| Height  | 127 mm  |
| Width   | 85 mm   |
| Depth   | 130 mm  |
| Net weight  | 1.61 kg   |

## Packing Units

|                              |         |
|------------------------------|---------|
| Unit Type of Package 1       | PCE     |
| Number of Units in Package 1 | 1       |
| Package 1 Height             | 15.5 cm |
| Package 1 Width              | 9.5 cm  |
| Package 1 Length             | 13.5 cm |
| Package 1 Weight             | 1.6 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  <a href="#">EU RoHS Declaration</a> |
| Toxic heavy metal free     | Yes   |
| Mercury free               | Yes   |
| China RoHS Regulation      |  <a href="#">China RoHS Declaration</a>        |
| 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   |

Contractual warranty

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