



## Main

|                                |   |
|--------------------------------|---|
| Range of product               | TeSys Deca  |
| Product or component type      | Contacteur  |
| Device short name              | LC1D  |
| Contacteur application         | Resistive load<br>Motor control   |
| Utilisation category           | AC-4<br>AC-3<br>AC-1<br>AC-3e   |
| Poles description              | 3P  |
| [Ue] rated operational voltage | Power circuit: <= 690 V AC 25...400 Hz<br>Power circuit: <= 300 V DC  |
| [Ie] rated operational current | 25 A (at <60 °C) at <= 440 V AC AC-1 for power circuit<br>12 A (at <60 °C) at <= 440 V AC AC-3 for power circuit<br>12 A (at <60 °C) at <= 440 V AC AC-3e for power circuit |
| [Uc] control circuit voltage   | 100 V DC  |

## Complementary

|   |   |
|---|---|
| Motor power kW                              | 3 kW at 220...230 V AC 50/60 Hz (AC-3)<br>5.5 kW at 380...400 V AC 50/60 Hz (AC-3)<br>5.5 kW at 415...440 V AC 50/60 Hz (AC-3)<br>7.5 kW at 500 V AC 50/60 Hz (AC-3)<br>7.5 kW at 660...690 V AC 50/60 Hz (AC-3)<br>3.7 kW at 400 V AC 50/60 Hz (AC-4)<br>3 kW at 220...230 V AC 50/60 Hz (AC-3e)<br>5.5 kW at 380...400 V AC 50/60 Hz (AC-3e)<br>5.5 kW at 415...440 V AC 50/60 Hz (AC-3e)<br>7.5 kW at 500 V AC 50/60 Hz (AC-3e)<br>7.5 kW at 660...690 V AC 50/60 Hz (AC-3e) |
| Motor power hp                              | 0.5 Hp at 115 V AC 50/60 Hz for 1 phase motors<br>2 Hp at 230/240 V AC 50/60 Hz for 1 phase motors<br>3 Hp at 200/208 V AC 50/60 Hz for 3 phases motors<br>3 Hp at 230/240 V AC 50/60 Hz for 3 phases motors<br>7.5 Hp at 460/480 V AC 50/60 Hz for 3 phases motors<br>10 hp at 575/600 V AC 50/60 Hz for 3 phases motors   |
| Compatibility code                          | LC1D  |
| Pole contact composition                    | 3 NO  |
| Protective cover                            | With  |
| [Ith] conventional free air thermal current | 25 A (at 60 °C) for power circuit<br>10 A (at 60 °C) for signalling circuit   |
| 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  |
| [Icw] rated short-time withstand current    | 105 A 40 °C - 10 s for power circuit<br>210 A 40 °C - 1 s for power circuit<br>30 A 40 °C - 10 min for power circuit<br>61 A 40 °C - 1 min 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  |

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|--|--|
| Associated fuse rating                 | 10 A gG for signalling circuit conforming to IEC 60947-5-1<br>40 A gG at ≤ 690 V coordination type 1 for power circuit<br>25 A gG at ≤ 690 V coordination type 2 for power circuit   |
| Average impedance                      | 2.5 mOhm - Ith 25 A 50 Hz for power circuit  |
| Power dissipation per pole             | 0.36 W AC-3<br>1.56 W AC-1<br>0.36 W AC-3e   |
| [Ui] rated insulation voltage          | Power circuit: 690 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 | 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                  | 2 Mcycles 12 A AC-3 at Ue ≤ 440 V<br>0.8 Mcycles 25 A AC-1 at Ue ≤ 440 V<br>2 Mcycles 12 A AC-3e at Ue ≤ 440 V   |
| Control circuit type                   | DC standard  |
| 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...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                         | 63 ±15 % ms closing<br>20 ±20 % ms opening   |
| Time constant                          | 28 ms  |
| Maximum operating rate                 | 3600 cyc/h 60 °C   |
| Connections - terminals                | Control circuit: lugs-ring terminals - external diameter: 8 mm<br>Power circuit: lugs-ring terminals - external diameter: 8 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 flat Ø 8 mm M3.5<br>Power circuit: 1.7 N.m - on lugs-ring terminals - with screwdriver Philips No 2 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 |
| 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   | 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<br>IEC 60335-1   |
| Product certifications                                | RINA[RETURN]LROS (Lloyds register of shipping)<br>[RETURN]BV[RETURN]GL[RETURN]CCC[RETURN]CSA[RETURN]DNV[RETURN]JUL[RETURN]   |
| 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 open (10 Gn for 11 ms)<br>Shocks contactor closed (15 Gn for 11 ms) |
| Height  | 77 mm  |
| Width   | 45 mm  |
| Depth   | 95 mm  |
| Net weight  | 0.485 kg   |

## Packing Units

|                              |         |
|------------------------------|---------|
| Unit Type of Package 1       | PCE     |
| Number of Units in Package 1 | 1       |
| Package 1 Height             | 10.3 cm |
| Package 1 Width              | 8.1 cm  |
| Package 1 Length             | 5.4 cm  |
| Package 1 Weight             | 501.0 g |

## Offer Sustainability

|                            |   |
|----------------------------|---|
| Sustainable offer status   | Green Premium product                         |
| REACH Regulation           | <a href="#">REACH Declaration</a>             |
| EU RoHS Directive          | Compliant with Exemptions                     |
| 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> |
| Circularity Profile        | <a href="#">End Of Life Information</a>       |
| PVC free                   | Yes   |

## Contractual warranty

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