



## Main

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|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                          | TeSys<br>TeSys Deca                                                                                                                                             |
| Range of product               | TeSys Deca                                                                                                                                                      |
| Product or component type      | Contacteur                                                                                                                                                      |
| Device short name              | LC1D                                                                                                                                                            |
| Contacteur application         | Resistive load<br>Motor control                                                                                                                                 |
| Utilisation category           | AC-3<br>AC-1<br>AC-3e                                                                                                                                           |
| Poles description              | 3P                                                                                                                                                              |
| [Ue] rated operational voltage | Power circuit: ≤ 690 V AC 25...400 Hz                                                                                                                           |
| [Ie] rated operational current | 25 A (at <60 °C) at ≤ 440 V AC-1 for power circuit<br>12 A (at <60 °C) at ≤ 440 V AC-3 for power circuit<br>12 A (at <60 °C) at ≤ 440 V AC-3e for power circuit |
| [Uc] control circuit voltage   | 24...60 V AC 50/60 Hz<br>24...60 V DC                                                                                                                           |

## Complementary

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Motor power kW                              | 3 kW at 220...230 V AC 50 Hz (AC-3)<br>5.5 kW at 380...400 V AC 50 Hz (AC-3)<br>5.5 kW at 415 V AC 50 Hz (AC-3)<br>5.5 kW at 440 V AC 50 Hz (AC-3)<br>7.5 kW at 500 V AC 50 Hz (AC-3)<br>7.5 kW at 660...690 V AC 50 Hz (AC-3)<br>3 kW at 220...230 V AC 50 Hz (AC-3e)<br>5.5 kW at 380...400 V AC 50 Hz (AC-3e)<br>5.5 kW at 415 V AC 50 Hz (AC-3e)<br>5.5 kW at 440 V AC 50 Hz (AC-3e)<br>7.5 kW at 500 V AC 50 Hz (AC-3e)<br>7.5 kW at 660...690 V AC 50 Hz (AC-3e) |
| Motor power hp                              | 0.5 Hp at 115 V AC 60 Hz for 1 phase motors<br>2 Hp at 230/240 V AC 60 Hz for 1 phase motors<br>3 Hp at 200/208 V AC 60 Hz for 3 phases motors<br>3 Hp at 230/240 V AC 60 Hz for 3 phases motors<br>7.5 Hp at 460/480 V AC 60 Hz for 3 phases motors<br>10 Hp at 575/600 V AC 60 Hz for 3 phases motors                                                                                                                                                                |
| Compatibility code                          | LC1D                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Pole contact composition                    | 3 NO                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Protective cover                            | With                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| [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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| [Icw] rated short-time withstand current | 100 A - 1 s for signalling circuit<br>120 A - 500 ms for signalling circuit<br>140 A - 100 ms for signalling circuit<br>30 A 40 °C - 10 min for power circuit<br>61 A 40 °C - 1 min for power circuit<br>105 A 40 °C - 10 s for power circuit<br>210 A 40 °C - 1 s for power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Associated fuse rating                   | 10 A gG for signalling circuit conforming to IEC 60947-5-1<br>40 A gG at $\leq 690$ V coordination type 1 for power circuit<br>25 A gG at $\leq 690$ V coordination type 2 for power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Average impedance                        | 2.5 MOhm - Ith 25 A 50 Hz for power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Power dissipation per pole               | 1.56 W AC-1<br>0.36 W AC-3<br>0.36 W AC-3e                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| [Ui] rated insulation voltage            | Power circuit: 690 V conforming to IEC 60947-4-1<br>Signalling circuit: 690 V conforming to IEC 60947-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 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-<br>to EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical load conforming-<br>to EN/ISO 13849-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Mechanical durability                    | 15 Mcycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Electrical durability                    | 2.3 Mcycles 11 A AC-3 at $U_e \leq 440$ V<br>0.8 Mcycles 25 A AC-1 at $U_e \leq 440$ V<br>2.3 Mcycles 11 A AC-3e at $U_e \leq 440$ V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Control circuit type                     | AC/DC at 50/60 Hz AC/DC electronic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Coil technology                          | Built-in bidirectional peak limiting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Control circuit voltage limits           | $\leq 0.1 U_c$ (-40...70 °C):drop-out AC/DC<br>0.85...1.1 $U_c$ (-40...60 °C):operational AC<br>0.8...1.1 $U_c$ (-40...60 °C):operational DC<br>1...1.1 $U_c$ (60...70 °C):operational AC/DC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Inrush power in VA                       | 15 VA 50/60 Hz (at 20 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Inrush power in W                        | 14 W (at 20 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Hold-in power consumption in VA          | 0.9 VA 50/60 Hz (at 20 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Hold-in power consumption in W           | 0.6 W at 20 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Heat dissipation                         | 0.6 W at 50/60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Operating time                           | 45...55 ms closing<br>20...90 ms opening                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Maximum operating rate                   | 3600 Cyc/H 60 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Connections - terminals                  | Control circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: flexible with-<br>out cable end<br>Control circuit: screw clamp terminals 2 1...4 mm <sup>2</sup> - cable stiffness: flexible with-<br>out cable end<br>Control circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: flexible with-<br>cable end<br>Control circuit: screw clamp terminals 2 1...2.5 mm <sup>2</sup> - cable stiffness: flexible-<br>with cable end<br>Control circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: solid<br>Control circuit: screw clamp terminals 2 1...4 mm <sup>2</sup> - cable stiffness: solid<br>Power circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: flexible with-<br>out cable end<br>Power circuit: screw clamp terminals 2 1...4 mm <sup>2</sup> - cable stiffness: flexible with-<br>out cable end<br>Power circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: flexible with-<br>cable end<br>Power circuit: screw clamp terminals 2 1...2.5 mm <sup>2</sup> - cable stiffness: flexible with-<br>cable end<br>Power circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: solid<br>Power circuit: screw clamp terminals 2 1...4 mm <sup>2</sup> - cable stiffness: solid |

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| Tightening torque             | Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm<br>Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2<br>Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm<br>Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2<br>Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver-<br>pozidriv No 2<br>Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver-<br>pozidriv No 2 |
| 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 60947-4-1<br>EN/IEC 60947-5-1<br>UL 60947-4-1<br>CSA C22.2 No 60947-4-1<br>IEC 60335-1                                                                                          |
| Product certifications                                | CCC<br>CSA<br>EAC<br>UL<br>KC<br>DNV-GL<br>LROS (Lloyds register of shipping)<br>UKCA                                                                                                  |
| IP degree of protection                               | IP20 front face conforming to IEC 60529                                                                                                                                                |
| 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                                                 | 86 Mm                                                                                                                                                                                  |
| Net weight                                            | 0.373 Kg                                                                                                                                                                               |

## Packing Units

|                              |           |
|------------------------------|-----------|
| Unit Type of Package 1       | PCE       |
| Number of Units in Package 1 | 1         |
| Package 1 Height             | 5.700 Cm  |
| Package 1 Width              | 9.500 Cm  |
| Package 1 Length             | 12.000 Cm |
| Package 1 Weight             | 395.000 G |
| Unit Type of Package 2       | S02       |
| Number of Units in Package 2 | 15        |
| Package 2 Height             | 15.000 Cm |
| Package 2 Width              | 30.000 Cm |
| Package 2 Length             | 40.000 Cm |
| Package 2 Weight             | 6.218 Kg  |

### Offer Sustainability

|                             |                                                                                                                             |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status    | Green Premium product                                                                                                       |
| REACH Regulation            | <a href="#">REACH Declaration</a>                                                                                           |
| EU RoHS Directive           | Compliant <a href="#">EU RoHS Declaration</a>                                                                               |
| 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>                                                                                     |
| WEEE                        | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| Halogen content performance | Halogen free plastic parts & cables product                                                                                 |

### Contractual warranty

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

|                       |                |
|-----------------------|----------------|
| Product Life Status : | Commercialised |
|-----------------------|----------------|