





## Main

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|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                       | TeSys<br>TeSys Deca                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Product name                                | TeSys D<br>TeSys Deca                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Product or component type                   | Contacteur                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Device short name                           | LC1D                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Contacteur application                      | Resistive load<br>Motor control                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Utilisation category                        | AC-4<br>AC-1<br>AC-3<br>AC-3e                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Poles description                           | 3P                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Power pole contact composition              | 3 NO                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| [Ue] rated operational voltage              | Power circuit: ≤ 690 V AC 25...400 Hz<br>Power circuit: ≤ 300 V DC                                                                                                                                                                                                                                                                                                                                                                                                          |
| [Ie] rated operational current              | 9 A (at <60 °C) at ≤ 440 V AC AC-3 for power circuit<br>25 A (at <60 °C) at ≤ 440 V AC AC-1 for power circuit<br>9 A (at <60 °C) at ≤ 440 V AC AC-3e for power circuit                                                                                                                                                                                                                                                                                                      |
| Motor power kW                              | 2.2 KW at 220...230 V AC 50/60 Hz (AC-3)<br>4 KW at 380...400 V AC 50/60 Hz (AC-3)<br>4 KW at 415...440 V AC 50/60 Hz (AC-3)<br>5.5 KW at 500 V AC 50/60 Hz (AC-3)<br>5.5 KW at 660...690 V AC 50/60 Hz (AC-3)<br>2.2 KW at 400 V AC 50/60 Hz (AC-4)<br>2.2 KW at 220...230 V AC 50/60 Hz (AC-3e)<br>4 KW at 380...400 V AC 50/60 Hz (AC-3e)<br>4 KW at 415...440 V AC 50/60 Hz (AC-3e)<br>5.5 KW at 500 V AC 50/60 Hz (AC-3e)<br>5.5 kW at 660...690 V AC 50/60 Hz (AC-3e) |
| Motor power HP (UL / CSA)                   | 1 Hp at 230/240 V AC 50/60 Hz for 1 phase motors<br>2 Hp at 200/208 V AC 50/60 Hz for 3 phases motors<br>2 Hp at 230/240 V AC 50/60 Hz for 3 phases motors<br>5 Hp at 460/480 V AC 50/60 Hz for 3 phases motors<br>7.5 Hp at 575/600 V AC 50/60 Hz for 3 phases motors<br>0.33 hp at 115 V AC 50/60 Hz for 1 phase motors                                                                                                                                                   |
| Control circuit type                        | AC at 50/60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| [Uc] control circuit voltage                | 24 V AC 50/60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Auxiliary contact composition               | 1 NO + 1 NC                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| [Uimp] rated impulse withstand voltage      | 6 kV conforming to IEC 60947                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Overvoltage category                        | III                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| [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>25 A gG at ≤ 690 V coordination type 1 for power circuit<br>20 A gG at ≤ 690 V coordination type 2 for power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Average impedance             | 2.5 mOhm - Ith 25 A 50 Hz for power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| [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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Electrical durability         | 0.6 Mcycles 25 A AC-1 at Ue ≤ 440 V<br>2 Mcycles 9 A AC-3 at Ue ≤ 440 V<br>2 Mcycles 9 A AC-3e at Ue ≤ 440 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Power dissipation per pole    | 1.56 W AC-1<br>0.2 W AC-3<br>0.2 W AC-3e                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Front cover                   | With                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Mounting support              | Rail<br>Plate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 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        | GL<br>CSA<br>GOST<br>RINA<br>LROS (Lloyds register of shipping)<br>UL<br>DNV<br>BV<br>CCC<br>UKCA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Connections - terminals       | Power circuit: screw clamp terminals 1 cable(s) 1... 4 mm <sup>2</sup> flexible without cable end<br>Power circuit: screw clamp terminals 2 cable(s) 1... 4 mm <sup>2</sup> flexible without cable end<br>Power circuit: screw clamp terminals 1 cable(s) 1... 4 mm <sup>2</sup> flexible with cable end<br>Power circuit: screw clamp terminals 2 cable(s) 1... 2.5 mm <sup>2</sup> flexible with cable end<br>Power circuit: screw clamp terminals 1 cable(s) 1... 4 mm <sup>2</sup> solid without cable end<br>Power circuit: screw clamp terminals 2 cable(s) 1... 4 mm <sup>2</sup> solid without cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1... 4 mm <sup>2</sup> flexible without cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1... 4 mm <sup>2</sup> flexible without cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1... 4 mm <sup>2</sup> flexible with cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1... 2.5 mm <sup>2</sup> flexible with cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1... 4 mm <sup>2</sup> solid without cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1... 4 mm <sup>2</sup> solid without cable end |
| Tightening torque             | 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>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>Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2<br>Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

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|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating time           | 12...22 ms closing<br>4...19 ms opening                                                                                                                              |
| 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    | 15 Mcycles                                                                                                                                                           |
| Maximum operating rate   | 3600 cyc/h 60 °C                                                                                                                                                     |

## Complementary

|                                 |                                                                                                                                                                                                           |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Coil technology                 | Without built-in suppressor module                                                                                                                                                                        |
| Control circuit voltage limits  | 0.3...0.6 Uc (-40...70 °C):drop-out AC 50/60 Hz<br>0.8...1.1 Uc (-40...60 °C):operational AC 50 Hz<br>0.85...1.1 Uc (-40...60 °C):operational AC 60 Hz<br>1...1.1 Uc (60...70 °C):operational AC 50/60 Hz |
| Inrush power in VA              | 70 VA 60 Hz cos phi 0.75 (at 20 °C)<br>70 VA 50 Hz cos phi 0.75 (at 20 °C)                                                                                                                                |
| Hold-in power consumption in VA | 7.5 VA 60 Hz cos phi 0.3 (at 20 °C)<br>7 VA 50 Hz cos phi 0.3 (at 20 °C)                                                                                                                                  |
| Heat dissipation                | 2...3 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                                                                                                                                                                               |
| 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

|                                       |                                                                                                                                                                                    |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IP degree of protection               | IP20 front face conforming to IEC 60529                                                                                                                                            |
| Climatic withstand                    | Conforming to IACS E10<br>Conforming to IEC 60947-1 Annex Q category D                                                                                                             |
| Protective treatment                  | TH conforming to IEC 60068-2-30                                                                                                                                                    |
| Pollution degree                      | 3                                                                                                                                                                                  |
| Ambient air temperature for operation | -40...60 °C<br>60...70 °C with derating                                                                                                                                            |
| Ambient air temperature for storage   | -60...80 °C                                                                                                                                                                        |
| Operating altitude                    | 0...3000 m                                                                                                                                                                         |
| Fire resistance                       | 850 °C conforming to IEC 60695-2-1                                                                                                                                                 |
| 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                            | 0.32 kg                                                                                                                                                                            |

## Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Weight             | 358.0 g  |
| Package 1 Height             | 5.0 cm   |
| Package 1 width              | 9.0 cm   |
| Package 1 Length             | 11.0 cm  |
| Unit Type of Package 2       | S02      |
| Number of Units in Package 2 | 20       |
| Package 2 Weight             | 7.394 kg |
| Package 2 Height             | 15.0 cm  |

|                              |            |
|------------------------------|------------|
| Package 2 width              | 30.0 cm    |
| Package 2 Length             | 40.0 cm    |
| Unit Type of Package 3       | P06        |
| Number of Units in Package 3 | 320        |
| Package 3 Weight             | 126.304 kg |
| Package 3 Height             | 75.0 cm    |
| Package 3 width              | 80.0 cm    |
| Package 3 Length             | 60.0 cm    |

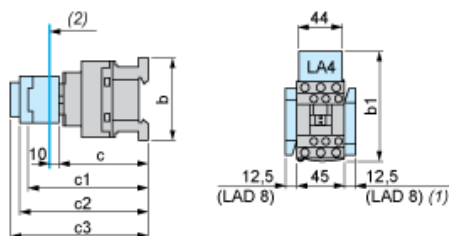
### Offer Sustainability

|                            |                                                                                                                                 |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| 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                                                                                                                             |
| RoHS exemption information | <a href="#"> Yes</a>                           |
| China RoHS Regulation      | <a href="#"> China RoHS Declaration</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     |
| PVC free                   | Yes                                                                                                                             |

### Contractual warranty

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

## Dimensions



- (1) Including LAD 4BB  
(2) Minimum electrical clearance

| LC1                                |                                   | D09...D18          | D093...D123          | D099...D129 |
|------------------------------------|-----------------------------------|--------------------|----------------------|-------------|
| b                                  | without add-on blocks             | 77                 | 99                   | 80          |
| b1                                 | with LAD 4BB                      | 94                 | 107                  | 95.5        |
| with LA4 D•2                       | 110 <sup>(1)</sup>                | 123 <sup>(1)</sup> | 111.5 <sup>(1)</sup> |             |
| with LA4 DF, DT                    | 119 <sup>(1)</sup>                | 132 <sup>(1)</sup> | 120.5 <sup>(1)</sup> |             |
| with LA4 DW, DL                    | 126 <sup>(1)</sup>                | 139 <sup>(1)</sup> | 127.5 <sup>(1)</sup> |             |
| c                                  | without cover or add-on blocks    | 84                 | 84                   | 84          |
| with cover, without add-on blocks  | 86                                | 86                 | 86                   |             |
| c1                                 | with LAD N or C (2 or 4 contacts) | 117                | 117                  | 117         |
| c2                                 | with LA6 DK10, LAD 6K10           | 129                | 129                  | 129         |
| c3                                 | with LAD T, R, S                  | 137                | 137                  | 137         |
| with LAD T, R, S and sealing cover | 141                               | 141                | 141                  |             |
| (1)                                | Including LAD 4BB.                |                    |                      |             |

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Wiring

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