

# Product datasheet

Specifications



## TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 32 A - 24 V DC coil

Local distributor code: 386077825 LC1D32BL

### Main

|   |   |
|---|---|
| <b>Range</b>                                  | TeSys<br>TeSys Deca   |
| <b>Product name</b>                           | TeSys D<br>TeSys Deca   |
| <b>Product or component type</b>              | Contacteur  |
| <b>Device short name</b>                      | LC1D  |
| <b>Contacteur application</b>                 | Motor control<br>Resistive load   |
| <b>Utilisation category</b>                   | AC-3<br>AC-1<br>AC-4<br>AC-3e   |
| <b>Poles description</b>                      | 3P  |
| <b>Power pole contact composition</b>         | 3 NO  |
| <b>[Ue] rated operational voltage</b>         | Power circuit: <= 690 V AC 25...400 Hz<br>Power circuit: <= 300 V DC  |
| <b>[Ie] rated operational current</b>         | 32 A (at <60 °C) at <= 440 V AC AC-3 for power circuit<br>50 A (at <60 °C) at <= 440 V AC AC-1 for power circuit<br>32 A (at <60 °C) at <= 440 V AC AC-3e for power circuit   |
| <b>Motor power kW</b>                         | 7.5 kW at 220...230 V AC 50/60 Hz (AC-3)<br>15 kW at 380...400 V AC 50/60 Hz (AC-3)<br>15 kW at 415...440 V AC 50/60 Hz (AC-3)<br>18.5 kW at 500 V AC 50/60 Hz (AC-3)<br>18.5 kW at 660...690 V AC 50/60 Hz (AC-3)<br>7.5 kW at 400 V AC 50/60 Hz (AC-4)<br>7.5 kW at 220...230 V AC 50/60 Hz (AC-3e)<br>15 kW at 380...400 V AC 50/60 Hz (AC-3e)<br>15 kW at 415...440 V AC 50/60 Hz (AC-3e)<br>18.5 kW at 500 V AC 50/60 Hz (AC-3e)<br>18.5 kW at 660...690 V AC 50/60 Hz (AC-3e) |
| <b>Motor power HP (UL / CSA)</b>              | 2 hp at 115 V AC 50/60 Hz for 1 phase motors<br>5 hp at 230/240 V AC 50/60 Hz for 1 phase motors<br>7.5 hp at 200/208 V AC 50/60 Hz for 3 phases motors<br>10 hp at 230/240 V AC 50/60 Hz for 3 phases motors<br>20 hp at 460/480 V AC 50/60 Hz for 3 phases motors<br>30 hp at 575/600 V AC 50/60 Hz for 3 phases motors   |
| <b>Control circuit type</b>                   | DC low consumption  |
| <b>[Uc] control circuit voltage</b>           | 24 V DC   |
| <b>Auxiliary contact composition</b>          | 1 NO + 1 NC   |
| <b>[Uimp] rated impulse withstand voltage</b> | 6 kV conforming to IEC 60947  |
| <b>Overvoltage category</b>                   | III   |

|  |   |
|--|---|
| <b>[Ith] conventional free air thermal current</b> | 10 A (at 60 °C) for signalling circuit<br>50 A (at 60 °C) for power circuit   |
| <b>Irms rated making capacity</b>                  | 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<br>550 A at 440 V for power circuit conforming to IEC 60947  |
| <b>Rated breaking capacity</b>                     | 550 A at 440 V for power circuit conforming to IEC 60947  |
| <b>[Icw] rated short-time withstand current</b>    | 260 A 40 °C - 10 s for power circuit<br>430 A 40 °C - 1 s for power circuit<br>60 A 40 °C - 10 min for power circuit<br>138 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   |
| <b>Associated fuse rating</b>                      | 10 A gG for signalling circuit conforming to IEC 60947-5-1<br>63 A gG at ≤ 690 V coordination type 1 for power circuit<br>63 A gG at ≤ 690 V coordination type 2 for power circuit  |
| <b>Average impedance</b>                           | 2 mOhm - Ith 50 A 50 Hz for power circuit   |
| <b>[Ui] rated insulation voltage</b>               | 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   |
| <b>Electrical durability</b>                       | 1.65 Mcycles 32 A AC-3 at Ue ≤ 440 V<br>1.4 Mcycles 50 A AC-1 at Ue ≤ 440 V<br>1.65 Mcycles 32 A AC-3e at Ue ≤ 440 V  |
| <b>Power dissipation per pole</b>                  | 2 W AC-3<br>5 W AC-1<br>2 W AC-3e   |
| <b>Front cover</b>                                 | With  |
| <b>Mounting support</b>                            | Plate<br>Rail   |
| <b>Standards</b>                                   | 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  |
| <b>Product certifications</b>                      | DNV<br>RINA<br>BV<br>GL<br>LROS (Lloyds register of shipping)<br>CCC<br>GOST<br>CSA<br>UL<br>UKCA   |
| <b>Connections - terminals</b>                     | 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<br>Power circuit: screw clamp terminals 1 cable(s) 2.5...10 mm <sup>2</sup> flexible without cable end<br>Power circuit: screw clamp terminals 2 cable(s) 2.5...10 mm <sup>2</sup> flexible without cable end<br>Power circuit: screw clamp terminals 1 cable(s) 1...10 mm <sup>2</sup> flexible with cable end<br>Power circuit: screw clamp terminals 2 cable(s) 1.5...6 mm <sup>2</sup> flexible with cable end<br>Power circuit: screw clamp terminals 1 cable(s) 1.5...10 mm <sup>2</sup> solid without cable end<br>Power circuit: screw clamp terminals 2 cable(s) 2.5...10 mm <sup>2</sup> solid without cable end |
| <b>Tightening torque</b>                           | 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: 2.5 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm<br>Power circuit: 2.5 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: 2.5 N.m - on screw clamp terminals - with screwdriver pozidriv No 2  |
| <b>Operating time</b>                              | 65.45...88.55 ms closing<br>20...30 ms opening  |
| <b>Safety reliability level</b>                    | 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  |
| <b>Mechanical durability</b>                       | 30 Mcycles  |

|                        |                  |
|------------------------|------------------|
| Maximum operating rate | 3600 cyc/h 60 °C |
|------------------------|------------------|

## Complementary

|                                |   |
|--------------------------------|---|
| Coil technology                | Built-in bidirectional peak limiting diode suppressor   |
| Control circuit voltage limits | 0.1...0.3 U <sub>c</sub> (-40...70 °C):drop-out DC<br>0.8...1.25 U <sub>c</sub> (-40...60 °C):operational DC<br>1...1.25 U <sub>c</sub> (60...70 °C):operational DC |
| Time constant                  | 40 ms   |
| Inrush power in W              | 2.4 W (at 20 °C)  |
| Hold-in power consumption in W | 2.4 W at 20 °C  |
| 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 closed: 15 Gn for 11 ms<br>Shocks contactor open: 8 Gn for 11 ms |
| Height                                | 85 mm   |
| Width                                 | 45 mm   |
| Depth                                 | 101 mm  |
| Net weight                            | 0.535 kg  |

## Packing Units

|                              |         |
|------------------------------|---------|
| Unit Type of Package 1       | PCE     |
| Number of Units in Package 1 | 1       |
| Package 1 Weight             | 593.0 g |
| Package 1 Height             | 5 cm    |
| Package 1 width              | 9 cm    |
| Package 1 Length             | 11 cm   |
| Unit Type of Package 2       | S02     |

|                              |            |
|------------------------------|------------|
| Number of Units in Package 2 | 15         |
| Package 2 Weight             | 9.126 kg   |
| Package 2 Height             | 15 cm      |
| Package 2 width              | 30 cm      |
| Package 2 Length             | 40 cm      |
| Unit Type of Package 3       | P06        |
| Number of Units in Package 3 | 240        |
| Package 3 Weight             | 154.016 kg |
| Package 3 Height             | 75 cm      |
| Package 3 width              | 80 cm      |
| Package 3 Length             | 60 cm      |

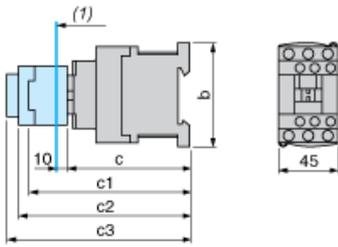
## Offer Sustainability

|                            |   |
|----------------------------|---|
| Sustainable offer status   | Green Premium product   |
| REACH Regulation           | <a href="#">REACH Declaration</a>   |
| REACH free of SVHC         | Yes   |
| EU RoHS Directive          | Compliant<br><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><br>Pro-active China RoHS declaration (out of China RoHS legal scope)                 |
| 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) Minimum electrical clearance

| LC1       |                                    | D25...D38 | D183...D323 |
|-----------|------------------------------------|-----------|-------------|
| <b>b</b>  |                                    | 85        | 99          |
| <b>c</b>  | without cover or add-on blocks     | 99        | 99          |
|           | with cover, without add-on blocks  | 101       | 101         |
| <b>c1</b> | with LAD N or C (2 or 4 contacts)  | 132       | 132         |
| <b>c2</b> | with LA6 DK10                      | 144       | 144         |
| <b>c3</b> | with LAD T, R, S                   | 152       | 152         |
|           | with LAD T, R, S and sealing cover | 156       | 156         |

Wiring

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