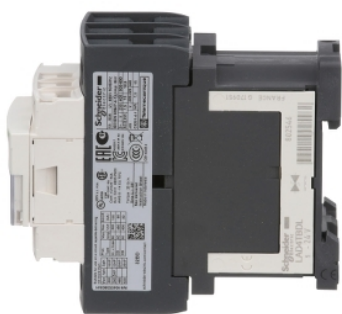


## Product data sheet

### Characteristics

LC1D32BD  
TeSys D contactor - 3P(3 NO) - AC-3 -  $\leq 440$   
V 32 A - 24 V DC coil





## Main

|   |   |
|---|---|
| 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-3<br>AC-1<br>AC-4<br>AC-3e   |
| Poles description                           | 3P  |
| Power pole contact composition              | 3 NO  |
| [Ue] rated operational voltage              | Power circuit: $\leq 690$ V AC 25...400 Hz<br>Power circuit: $\leq 300$ V DC  |
| [Ie] rated operational current              | 32 A (at $\leq 60$ °C) at $\leq 440$ V AC AC-3 for power circuit<br>50 A (at $\leq 60$ °C) at $\leq 440$ V AC AC-1 for power circuit<br>32 A (at $\leq 60$ °C) at $\leq 440$ V AC AC-3e for power circuit   |
| Motor power kW                              | 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) |
| Motor power HP (UL / CSA)                   | 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   |
| Control circuit type                        | DC standard   |
| [Uc] control circuit voltage                | 24 V DC   |
| 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 | 10 A (at 60 °C) for signalling circuit<br>50 A (at 60 °C) for power circuit   |
| Irms rated making capacity                  | 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  |
| Rated breaking capacity                     | 550 A at 440 V for power circuit conforming to IEC 60947  |

|  |   |
|--|---|
| [Icw] rated short-time withstand current | 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   |
| Associated fuse rating                   | 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  |
| Average impedance                        | 2 mOhm - Ith 50 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                    | 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  |
| Power dissipation per pole               | 2 W AC-3<br>5 W AC-1<br>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                   | DNV<br>GL<br>CCC<br>UL<br>GOST<br>BV<br>LROS (Lloyds register of shipping)<br>RINA<br>CSA<br>UKCA   |
| Connections - terminals                  | 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 |

|                          |  |
|--------------------------|--|
| 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: 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 |
| Operating time           | 53.55...72.45 ms closing<br>16...24 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    | 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...0.25 U <sub>c</sub> (-40...70 °C):drop-out DC<br>0.7...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                  | 28 ms  |
| Inrush power in W              | 5.4 W (at 20 °C)   |
| Hold-in power consumption in W | 5.4 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   |
| 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  |
| 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 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             | 588 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             | 9.073 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             | 153.168 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>   |
| EU RoHS Directive          | Compliant <a href="#">EU RoHS Declaration</a>   |
| 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 | 12 months |
|----------|-----------|

Dimensions



(1) Minimum electrical clearance

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

Wiring

