

# LC1D32F7

Contacteur, TeSys Deca, 3P(3NO), AC-3/AC-3e, <=440V, 32A, 110V AC 50/60Hz coil, screw clamp terminals



## Main

|                                |   |
|--------------------------------|---|
| Range of product               | TeSys Deca  |
| Product or component type      | Contacteur  |
| Device short name              | LC1D  |
| Contacteur application         | Resistive load<br>Motor control   |
| Utilisation category           | AC-1<br>AC-3<br>AC-4<br>AC-3e   |
| Poles description              | 3P  |
| [Ue] rated operational voltage | Power circuit: <= 690 V AC 25...400 Hz<br>Power circuit: <= 300 V DC  |
| [Ie] rated operational current | 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 |
| [Uc] control circuit voltage   | 110 V AC 50/60 Hz   |

## Complementary

|   |   |
|---|---|
| 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                              | 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>10 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>25 hp at 575/600 V AC 50/60 Hz for 3 phases motors  |
| Compatibility code                          | LC1D  |
| Pole contact composition                    | 3 NO  |
| Protective cover                            | With  |
| [Ith] conventional free air thermal current | 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  |

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|  |   |
|--|---|
| [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   |
| Power dissipation per pole               | 2 W AC-3<br>5 W AC-1<br>2 W AC-3e   |
| [Ui] rated insulation voltage            | Power circuit: 690 V conforming to IEC 60947-4-1<br>Power circuit: 600 V CSA certified<br>Power circuit: 600 V UL certified<br>Signalling circuit: 690 V conforming to IEC 60947-1<br>Signalling circuit: 600 V CSA certified<br>Signalling circuit: 600 V UL certified   |
| Overvoltage category                     | III   |
| Pollution degree                         | 3   |
| [Uimp] rated impulse withstand voltage   | 6 kV conforming to IEC 60947  |
| Safety reliability level                 | B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1  |
| Mechanical durability                    | 15 Mcycles  |
| 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  |
| Control circuit type                     | AC at 50/60 Hz standard   |
| 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   |
| Operating time                           | 12...22 ms closing<br>4...19 ms opening   |
| Maximum operating rate                   | 3600 cyc/h 60 °C  |
| Maximum operating rate                   | 3600 cyc/h at 60 °C   |
| Connections - terminals                  | Control circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: flexible without cable end<br>Control circuit: screw clamp terminals 2 1...4 mm <sup>2</sup> - cable stiffness: flexible without cable end<br>Control circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: flexible with cable end<br>Control circuit: screw clamp terminals 2 1...2.5 mm <sup>2</sup> - cable stiffness: flexible with cable end<br>Control circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: solid without cable end<br>Control circuit: screw clamp terminals 2 1...4 mm <sup>2</sup> - cable stiffness: solid without cable end<br>Power circuit: screw clamp terminals 1 2.5...10 mm <sup>2</sup> - cable stiffness: flexible without cable end<br>Power circuit: screw clamp terminals 2 2.5...10 mm <sup>2</sup> - cable stiffness: flexible without cable end<br>Power circuit: screw clamp terminals 1 1...10 mm <sup>2</sup> - cable stiffness: flexible with cable end<br>Power circuit: screw clamp terminals 2 1.5...6 mm <sup>2</sup> - cable stiffness: flexible with cable end<br>Power circuit: screw clamp terminals 1 1.5...10 mm <sup>2</sup> - cable stiffness: solid without cable end<br>Power circuit: screw clamp terminals 2 2.5...10 mm <sup>2</sup> - cable stiffness: 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 |
| 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              | Plate<br>Rail  |

## Environment

|   |   |
|---|---|
| Standards   | CSA C22.2 No 14<br>EN 60947-4-1<br>EN 60947-5-1<br>IEC 60947-4-1<br>IEC 60947-5-1<br>UL 60947-4-1<br>IEC 60335-1:Clause 30.2<br>IEC 60335-2-40:Annex JJ<br>UL 60335-2-40:Annex JJ<br>CSA C22.2 No 60947-4-1 |
| Product certifications                                | UL[RETURN]CCC[RETURN]CSA[RETURN]Marine[RETURN]UKCA[RETURN]EAC[RETURN]Scheme   |
| IP degree of protection                               | IP20 front face conforming to IEC 60529   |
| Protective treatment                                  | TH conforming to IEC 60068-2-30   |
| Climatic withstand                                    | Conforming to IACS E10 exposure to damp heat<br>Conforming to IEC 60947-1 Annex Q category D exposure to damp heat  |
| Permissible ambient air temperature around the device | -40...60 °C<br>60...70 °C with derating   |
| Operating altitude                                    | 0...3000 m  |
| Fire resistance                                       | 850 °C conforming to IEC 60695-2-1  |
| Flame retardance                                      | V1 conforming to UL 94  |
| Mechanical robustness                                 | Vibrations contactor open (2 Gn, 5...300 Hz)<br>Vibrations contactor closed (4 Gn, 5...300 Hz)<br>Shocks contactor closed (15 Gn for 11 ms)<br>Shocks contactor open (8 Gn for 11 ms)                       |
| Height  | 85 mm   |
| Width   | 45 mm   |
| Depth   | 92 mm   |
| Net weight  | 0.375 kg  |

## Packing Units

|                              |           |
|------------------------------|-----------|
| Unit Type of Package 1       | PCE       |
| Number of Units in Package 1 | 1         |
| Package 1 Height             | 5.200 cm  |
| Package 1 Width              | 9.300 cm  |
| Package 1 Length             | 11.300 cm |
| Package 1 Weight             | 416.000 g |
| Unit Type of Package 2       | S02       |
| Number of Units in Package 2 | 20        |
| Package 2 Height             | 15.000 cm |
| Package 2 Width              | 30.000 cm |
| Package 2 Length             | 40.000 cm |
| Package 2 Weight             | 8.520 kg  |

|                              |            |
|------------------------------|------------|
| Unit Type of Package 3       | P06        |
| Number of Units in Package 3 | 320        |
| Package 3 Height             | 75.000 cm  |
| Package 3 Width              | 60.000 cm  |
| Package 3 Length             | 80.000 cm  |
| Package 3 Weight             | 146.064 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>   |
| Sustainable packaging      | 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 |
| PVC free                   | Yes   |

### Contractual warranty

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

Dimensions



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

| LC1 |                                    | D25...D38 (3-pole) |
|-----|------------------------------------|--------------------|
| b   | without add-on blocks              | 85                 |
| b1  | with LAD 4BB                       | 98                 |
|     | with LA4 D•2                       | 114 <sup>(1)</sup> |
|     | with LA4 DF, DT                    | 123 <sup>(1)</sup> |
|     | with LA4 DW, DL                    | 130 <sup>(1)</sup> |
| c   | without cover or add-on blocks     | 90                 |
|     | with cover, without add-on blocks  | 92                 |
| c1  | with LAD N or C (2 or 4 contacts)  | 123                |
| c2  | with LA6 DK10, LAD 6K10            | 135                |
| c3  | with LAD T, R, S                   | 143                |
|     | with LAD T, R, S and sealing cover | 147                |
| (1) | Including LAD 4BB.                 |                    |

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Wiring

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