

# LC1D188ED

IEC contactor, TeSys Deca, nonreversing, 32A resistive, 4 pole, 2 NO and 2 NC, 48VDC coil, open style



## Main

|                                |   |
|--------------------------------|---|
| Range of Product               | TeSys Deca  |
| Product or Component Type      | Contacteur  |
| Device short name              | LC1D  |
| Contacteur application         | Resistive load  |
| Utilisation category           | AC-1<br>AC-3<br>AC-3e<br>AC-4                                   |
| Poles description              | 4P  |
| [Ue] rated operational voltage | Power circuit <= 690 V AC 25...400 Hz                           |
| [Ie] rated operational current | 32 A (at <140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit |
| [Uc] control circuit voltage   | 48 V DC   |

## Complementary

|   |  |
|---|--|
| Compatibility code                          | LC1D   |
| Pole contact composition                    | 2 NO + 2 NC  |
| Protective cover                            | With   |
| [Ith] conventional free air thermal current | 10 A (at 140 °F (60 °C)) for signalling circuit<br>32 A (at 140 °F (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>300 A at 440 V for power circuit conforming to IEC 60947   |
| Rated breaking capacity                     | 300 A at 440 V for power circuit conforming to IEC 60947   |
| [Icw] rated short-time withstand current    | 145 A 104 °F (40 °C) - 10 s for power circuit<br>240 A 104 °F (40 °C) - 1 s for power circuit<br>40 A 104 °F (40 °C) - 10 min for power circuit<br>84 A 104 °F (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>50 A gG at <= 690 V coordination type 1 for power circuit<br>35 A gG at <= 690 V coordination type 2 for power circuit   |
| Average impedance                           | 2.5 mOhm - Ith 32 A 50 Hz for power circuit  |
| Power dissipation per pole                  | 2.5 W AC-1   |
| [Ui] rated insulation voltage               | Power circuit 690 V IEC 60947-4-1<br>Power circuit 600 V CSA<br>Power circuit 600 V UL<br>Signalling circuit 690 V IEC 60947-1<br>Signalling circuit 600 V CSA<br>Signalling circuit 600 V UL  |
| Overvoltage category                        | III  |
| Pollution degree                            | 3  |
| [Uimp] rated impulse withstand voltage      | 6 kV IEC 60947   |
| Safety reliability level                    | B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1   |
| Mechanical durability                       | 30 Mcycles   |
| Electrical durability                       | 1 Mcycles 32 A AC-1 <= 440 V   |

|                                |  |
|--------------------------------|--|
| Control circuit type           | DC standard  |
| Coil technology                | With integral suppression device   |
| Control circuit voltage limits | 0.1...0.25 U <sub>c</sub> -40...140 °F (-40...60 °C) drop-out DC<br>0.7...1.25 U <sub>c</sub> -40...140 °F (-40...60 °C) operational DC  |
| Inrush power in W              | 5.4 W 68 °F (20 °C))   |
| Hold-in power consumption in W | 5.4 W 68 °F (20 °C)  |
| Operating time                 | 63 ±15 % ms closing<br>20 ±20 % ms opening   |
| Time constant                  | 28 ms  |
| Maximum operating rate         | 3600 cyc/h 140 °F (60 °C)  |
| Connections - terminals        | Control circuit: screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: flexible without cable end<br>Control circuit: screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: flexible without cable end<br>Control circuit: screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: flexible with cable end<br>Control circuit: screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) - cable stiffness: flexible with cable end<br>Control circuit: screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: solid without cable end<br>Control circuit: screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: solid without cable end<br>Power circuit: screw clamp terminals 1 0.00...0.02 in <sup>2</sup> (2.5...10 mm <sup>2</sup> ) - cable stiffness: flexible without cable end<br>Power circuit: screw clamp terminals 2 0.00...0.02 in <sup>2</sup> (2.5...10 mm <sup>2</sup> ) - cable stiffness: flexible without cable end<br>Power circuit: screw clamp terminals 1 0.00...0.02 in <sup>2</sup> (2.5...10 mm <sup>2</sup> ) - cable stiffness: flexible with cable end<br>Power circuit: screw clamp terminals 2 0.00...0.02 in <sup>2</sup> (2.5...10 mm <sup>2</sup> ) - cable stiffness: flexible with cable end<br>Power circuit: screw clamp terminals 1 0.00...0.02 in <sup>2</sup> (2.5...16 mm <sup>2</sup> ) - cable stiffness: solid without cable end<br>Power circuit: screw clamp terminals 2 0.00...0.02 in <sup>2</sup> (2.5...16 mm <sup>2</sup> ) - cable stiffness: solid without cable end |
| Tightening torque              | Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm<br>Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2<br>Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2<br>Power circuit 15.93 lbf.in (1.8 N.m) screw clamps terminals flat Ø 6 mm<br>Power circuit 15.93 lbf.in (1.8 N.m) screw clamps terminals Philips No 2<br>Power circuit 15.93 lbf.in (1.8 N.m) screw clamp terminals pozidriv No 2   |
| Auxiliary contact composition  | 1 NO + 1 NC  |
| Auxiliary contacts type        | Mechanically linked 1 NO + 1 NC IEC 60947-5-1<br>Mirror contact 1 NC 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               | 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>UL 60947-5-1<br>CSA C22.2 No 60947-4-1<br>CSA C22.2 No 60947-5-1<br>GB/T 14048.4 |
| Product Certifications  | UL[RETURN]CSA[RETURN]CCC[RETURN]EAC[RETURN]UKCA[RETURN]CB[RETURN]EU-RO-MR by DNV-GL  |
| IP degree of protection | IP20 front face IEC 60529  |
| Protective treatment    | THIEC 60068-2-30   |
| Climatic withstand      | IACS E10 exposure to damp heat<br>IEC 60947-1 Annex Q category D exposure to damp heat   |

|   |  |
|---|--|
| Permissible ambient air temperature around the device | -40...140 °F (-40...60 °C)<br>140...158 °F (60...70 °C) with derating  |
| Operating altitude                                    | 0...9842.52 ft (0...3000 m)  |
| Fire resistance                                       | 1562 °F (850 °C) 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  | 3.58 in (91 mm)  |
| Width   | 1.77 in (45 mm)  |
| Depth   | 4.21 in (107 mm)   |
| Net Weight  | 1.29 lb(US) (0.585 kg)   |






## Ordering and shipping details

|                   |               |
|-------------------|---------------|
| Category          | US10I1222355  |
| Discount Schedule | 0I12          |
| GTIN              | 3389110420432 |
| Returnability     | No            |
| Country of origin | ID            |

## Packing Units

|                              |                        |
|------------------------------|------------------------|
| Unit Type of Package 1       | PCE                    |
| Number of Units in Package 1 | 1                      |
| Package 1 Height             | 2.17 in (5.5 cm)       |
| Package 1 Width              | 3.74 in (9.5 cm)       |
| Package 1 Length             | 4.72 in (12 cm)        |
| Package 1 Weight             | 22.26 oz (631 g)       |
| Unit Type of Package 2       | S02                    |
| Number of Units in Package 2 | 15                     |
| Package 2 Height             | 5.91 in (15 cm)        |
| Package 2 Width              | 11.81 in (30 cm)       |
| Package 2 Length             | 15.75 in (40 cm)       |
| Package 2 Weight             | 22.27 lb(US) (10.1 kg) |

## Offer Sustainability

|                            |   |
|----------------------------|---|
| Sustainable offer status   | Green Premium product   |
| California proposition 65  | WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |
| REACH Regulation           |  <a href="#">REACH Declaration</a>   |
| EU RoHS Directive          | Compliant with Exemptions   |
| 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>   |
| PVC free                   | Yes   |

## Contractual warranty

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