

# LC1D256BD

IEC contactor, TeSys Deca, nonreversing, 25A, 15HP at 480VAC, 3 phase, 3 pole, 3 NO, 24VDC coil, open style



## Main

|                                |  |
|--------------------------------|--|
| Range of Product               | TeSys Deca   |
| Product or Component Type      | Contacteur   |
| Device short name              | LC1D   |
| Contacteur application         | Motor control<br>Resistive load  |
| Utilisation category           | AC-3<br>AC-1<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 | 25 A (at <140 °F (60 °C)) at <= 440 V AC AC-3 for power circuit<br>40 A (at <140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit<br>25 A (at <140 °F (60 °C)) at <= 440 V AC AC-3e for power circuit |
| [Uc] control circuit voltage   | 24 V DC  |

## Complementary

|   |   |
|---|---|
| Motor power kW                              | 5.5 KW at 220...230 V AC 50/60 Hz (AC-3)<br>11 KW at 380...400 V AC 50/60 Hz (AC-3)<br>11 KW at 415...440 V AC 50/60 Hz (AC-3)<br>15 KW at 500 V AC 50/60 Hz (AC-3)<br>15 KW at 660...690 V AC 50/60 Hz (AC-3)<br>5.5 KW at 400 V AC 50/60 Hz (AC-4)<br>5.5 KW at 220...230 V AC 50/60 Hz (AC-3e)<br>11 KW at 380...400 V AC 50/60 Hz (AC-3e)<br>11 KW at 415...440 V AC 50/60 Hz (AC-3e)<br>15 KW at 500 V AC 50/60 Hz (AC-3e)<br>15 kW at 660...690 V AC 50/60 Hz (AC-3e) |
| Maximum Horse Power Rating                  | 3 Hp at 230/240 V AC 50/60 Hz for 1 phase motors<br>2 Hp at 115 V AC 50/60 Hz for 1 phase motors<br>7.5 Hp at 230/240 V AC 50/60 Hz for 3 phase motors<br>15 Hp at 460/480 V AC 50/60 Hz for 3 phase motors<br>20 Hp at 575/600 V AC 50/60 Hz for 3 phase motors<br>7.5 hp at 200/208 V AC 50/60 Hz for 3 phase motors  |
| Compatibility code                          | LC1D  |
| Pole contact composition                    | 3 NO  |
| Contact compatibility                       | M4  |
| Protective cover                            | With  |
| [Ith] conventional free air thermal current | 10 A (at 140 °F (60 °C)) for signalling circuit<br>40 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>450 A at 440 V for power circuit conforming to IEC 60947  |
| Rated breaking capacity                     | 450 A at 440 V for power circuit conforming to IEC 60947  |

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|  |  |
|--|--|
| [Icw] rated short-time withstand current | 240 A 104 °F (40 °C) - 10 s for power circuit<br>380 A 104 °F (40 °C) - 1 s for power circuit<br>50 A 104 °F (40 °C) - 10 min for power circuit<br>120 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>63 A gG at ≤ 690 V coordination type 1 for power circuit<br>40 A gG at ≤ 690 V coordination type 2 for power circuit   |
| Average impedance                        | 2 mOhm - lth 40 A 50 Hz for power circuit  |
| Power dissipation per pole               | 3.2 W AC-1<br>1.25 W AC-3<br>1.25 W AC-3e  |
| [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                    | 1.65 Mcycles 25 A AC-3 ≤ 440 V<br>1.4 Mcycles 40 A AC-1 ≤ 440 V<br>1.65 Mcycles 25 A AC-3e ≤ 440 V   |
| Control circuit type                     | DC standard  |
| Coil technology                          | Built-in bidirectional peak limiting diode suppressor  |
| Control circuit voltage limits           | 0.1...0.25 Uc -40...158 °F (-40...70 °C) drop-out DC<br>0.7...1.25 Uc -40...140 °F (-40...60 °C) operational DC<br>1...1.25 Uc 140...158 °F (60...70 °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: lugs-ring terminals - external diameter: 0.31 in (8 mm)<br>Power circuit: lugs-ring terminals - external diameter: 0.39 in (10 mm)  |
| Tightening torque                        | Control circuit 15.05 lbf.in (1.7 N.m) lugs-ring terminals flat Ø 6 mm M3.5<br>Control circuit 15.05 lbf.in (1.7 N.m) lugs-ring terminals Philips No 2 M3.5<br>Power circuit 22.13 lbf.in (2.5 N.m) lugs-ring terminals flat Ø 8 mm M4<br>Power circuit 22.13 lbf.in (2.5 N.m) lugs-ring terminals Philips No 2 M4<br>Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2<br>Power circuit 22.13 lbf.in (2.5 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                         | Rail<br>Plate  |

## 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 508<br>IEC 60335-1  |
| Product Certifications                                | BV[RETURN]UL[RETURN]DNV[RETURN]CSA[RETURN]GL[RETURN]GOST[RETURN]LRQS<br>(Lloyds register of shipping)[RETURN]CCC[RETURN]RINA[RETURN]UKCA  |
| 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 closed 15 Gn for 11 ms)<br>Shocks contactor open 8 Gn for 11 ms) |
| Height  | 3.35 in (85 mm)   |
| Width   | 1.77 in (45 mm)   |
| Depth   | 3.98 in (101 mm)  |
| Net Weight  | 1.17 lb(US) (0.53 kg)   |


## Ordering and shipping details

|                   |                                    |
|-------------------|------------------------------------|
| Category          | 22355-CTR, TESYS D, OPEN, 9-38A DC |
| Discount Schedule | I12                                |
| GTIN              | 3389110807592                      |
| 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 (5.500 cm)      |
| Package 1 Width              | 3.74 in (9.500 cm)      |
| Package 1 Length             | 4.72 in (12.000 cm)     |
| Package 1 Weight             | 21.02 oz (596.000 g)    |
| Unit Type of Package 2       | S02                     |
| Number of Units in Package 2 | 15                      |
| Package 2 Height             | 5.91 in (15.000 cm)     |
| Package 2 Width              | 11.81 in (30.000 cm)    |
| Package 2 Length             | 15.75 in (40.000 cm)    |
| Package 2 Weight             | 20.30 lb(US) (9.207 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 |
|----------|-----------|