# Product data sheet

Specifications





IEC contactor, TeSys Deca, nonreversing, 32A, 20HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, 110VAC 50/60Hz coil, open

LC1D32F7

Product availability: Stock - Normally stocked in distribution facility

Price\*: 206.40 USD

### Main

| Range Of Product               | TeSys Deca   |  |
|--------------------------------|--|--|
| Product Or Component Type      | Contactor  |  |
| Device Short Name              | LC1D   |  |
| Contactor 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 25400 Hz<br>Power circuit <= 300 V DC  |  |
| [le] Rated Operational Current | 32 A (at <140 °F (60 °C)) at <= 440 V AC AC-3 for power circuit<br>50 A (at <140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit<br>32 A (at <140 °F (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 220230 V AC 50/60 Hz (AC-3)             |
|----------------------------|---|
|                            | 15 kW at 380400 V AC 50/60 Hz (AC-3)              |
|                            | 15 kW at 415440 V AC 50/60 Hz (AC-3)              |
|                            | 18.5 kW at 500 V AC 50/60 Hz (AC-3)               |
|                            | 18.5 kW at 660690 V AC 50/60 Hz (AC-3)            |
|                            | 7.5 kW at 400 V AC 50/60 Hz (AC-4)                |
|                            | 7.5 kW at 220230 V AC 50/60 Hz (AC-3e)            |
|                            | 15 kW at 380400 V AC 50/60 Hz (AC-3e)             |
|                            | 15 kW at 415440 V AC 50/60 Hz (AC-3e)             |
|                            | 18.5 kW at 500 V AC 50/60 Hz (AC-3e)              |
|                            | 18.5 kW at 660690 V AC 50/60 Hz (AC-3e)           |
| Maximum Horse Power Rating | 2 hp at 115 V AC 50/60 Hz for 1 phase motors      |
|                            | 5 hp at 230/240 V AC 50/60 Hz for 1 phase motors  |
|                            | 10 hp at 200/208 V AC 50/60 Hz for 3 phase motors |
|                            | 10 hp at 230/240 V AC 50/60 Hz for 3 phase motors |
|                            | 20 hp at 460/480 V AC 50/60 Hz for 3 phase motors |
|                            | 25 hp at 575/600 V AC 50/60 Hz for 3 phase motors |
| Compatibility Code         | LC1D  |
| Pole Contact Composition   | 3 NO  |
| Protective Cover           | With  |
|                            |   |

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

| [Ith] Conventional Free Air<br>Thermal Current | 10 A (at 140 °F (60 °C)) for signalling circuit<br>50 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>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<br>Current    | 260 A 104 °F (40 °C) - 10 s for power circuit 430 A 104 °F (40 °C) - 1 s for power circuit 60 A 104 °F (40 °C) - 10 min for power circuit 138 A 104 °F (40 °C) - 1 min for power circuit 100 A - 1 s for signalling circuit 120 A - 500 ms for signalling circuit 140 A - 100 ms for signalling circuit |
| Associated Fuse Rating                         | 10 A gG for signalling circuit conforming to IEC 60947-5-1 63 A gG at <= 690 V coordination type 1 for power circuit 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 IEC 60947-4-1 Power circuit 600 V CSA Power circuit 600 V UL Signalling circuit 690 V IEC 60947-1 Signalling circuit 600 V CSA 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                          | 15 Mcycles  |
| Electrical Durability                          | 1.65 Mcycles 32 A AC-3 <= 440 V<br>1.4 Mcycles 50 A AC-1 <= 440 V<br>1.65 Mcycles 32 A AC-3e <= 440 V   |
| Control Circuit Type                           | AC 50/60 Hz standard  |
| Coil Technology                                | Without built-in suppressor module  |
| Control Circuit Voltage Limits                 | 0.30.6 Uc -40158 °F (-4070 °C) drop-out AC 50/60 Hz 0.81.1 Uc -40140 °F (-4060 °C) operational AC 50 Hz 0.851.1 Uc -40140 °F (-4060 °C) operational AC 60 Hz 11.1 Uc 140158 °F (6070 °C) operational AC 50/60 Hz  |
| Inrush Power In Va                             | 70 VA 60 Hz cos phi 0.75 (at 68 °F (20 °C))<br>70 VA 50 Hz cos phi 0.75 (at 68 °F (20 °C))  |
| Hold-In Power Consumption In Va                | 7.5 VA 60 Hz cos phi 0.3 (at 68 °F (20 °C))<br>7 VA 50 Hz cos phi 0.3 (at 68 °F (20 °C))  |
| Heat Dissipation                               | 23 W at 50/60 Hz  |
| Operating Time                                 | 1222 ms closing<br>419 ms opening   |
| Maximum Operating Rate                         | 3600 cyc/h 140 °F (60 °C)   |

| Connections - Terminals       | Control circuit: screw clamp terminals 1 0.000.01 in² (14 mm²) - cable stiffness:   |
|-------------------------------|---|
|                               | flexible without cable end Control circuit: screw clamp terminals 2 0.000.01 in² (14 mm²) - cable stiffness:  |
|                               | flexible without cable end  Control circuit: screw clamp terminals 1 0.000.01 in² (14 mm²) - cable stiffness:                                       |
|                               | flexible with cable end   |
|                               | Control circuit: screw clamp terminals 2 0.000.00 in² (12.5 mm²) - cable stiffness: flexible with cable end   |
|                               | Control circuit: screw clamp terminals 1 0.000.01 in² (14 mm²) - cable stiffness:   |
|                               | solid without cable end  Control circuit: screw clamp terminals 2 0.000.01 in² (14 mm²) - cable stiffness:  |
|                               | solid without cable end   |
|                               | Power circuit: screw clamp terminals 1 0.000.02 in² (2.510 mm²) - cable   |
|                               | stiffness: flexible without cable end  Power circuit: screw clamp terminals 2 0.000.02 in² (2.510 mm²) - cable                                      |
|                               | stiffness: flexible without cable end   |
|                               | Power circuit: screw clamp terminals 1 0.000.02 in <sup>2</sup> (110 mm <sup>2</sup> ) - cable stiffness: flexible with cable end                   |
|                               | Power circuit: screw clamp terminals 2 0.000.01 in² (1.56 mm²) - cable stiffness:   |
|                               | flexible with cable end Power circuit: screw clamp terminals 1 0.000.02 in² (1.510 mm²) - cable   |
|                               | stiffness: solid without cable end  |
|                               | Power circuit: screw clamp terminals 2 0.000.02 in² (2.510 mm²) - cable stiffness: solid without cable end  |
|                               | Stiffless. Solid without cable end  |
| Tightening Torque             | Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm  |
|                               | Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2 Power circuit 22.13 lbf.in (2.5 N.m) screw clamp terminals flat Ø 6 mm    |
|                               | Power circuit 22.13 lbf.in (2.5 N.m) screw clamp terminals Philips No 2   |
|                               | Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2 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 Mirror contact 1 NC IEC 60947-4-1   |
| Signalling Circuit Frequency  | 25400 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 1.5 ms on energisation between NC and NO contact  |
| Mounting Support              | Plate   |
|                               | Rail  |
| Environment                   |   |
| Standards                     | CSA C22.2 No 14   |
| otaliaa as                    | EN 60947-4-1  |
|                               | EN 60947-5-1<br>IEC 60947-4-1   |
|                               | IEC 60947-4-1   |
|                               | UL 508  |
|                               | IEC 60335-1   |
| Product Certifications        | GOST  |
|                               | BV<br>LROS (Lloyds register of shipping)  |
|                               | RINA  |
|                               | CCC<br>DNV  |
|                               | UL  |
|                               | CSA   |
|                               | GL<br>UKCA  |
| Ip Degree Of Protection       | IP20 front face IEC 60529   |
| Protective Treatment          | THIEC 60068-2-30  |
| Climatic Withstand            | IACS E10 exposure to damp heat  |
|                               | IEC 60947-1 Annex Q category D exposure to damp heat  |
|                               |   |

| Permissible Ambient Air<br>Temperature Around The Device | -40140 °F (-4060 °C)<br>140158 °F (6070 °C) with derating  |
|--|--|
| Operating Altitude                                       | 09842.52 ft (03000 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, 5300 Hz) Vibrations contactor closed 4 Gn, 5300 Hz) Shocks contactor closed 15 Gn for 11 ms) Shocks contactor open 8 Gn for 11 ms) |
| Height   | 3.35 in (85 mm)  |
| Width  | 1.77 in (45 mm)  |
| Depth  | 3.62 in (92 mm)  |
| Net Weight   | 0.83 lb(US) (0.375 kg)   |

# Ordering and shipping details

| Category          | US10l1222354  |
|-------------------|---------------|
| Discount Schedule | 0112          |
| Gtin              | 3389110350197 |
| Returnability     | Yes           |
| Country Of Origin | MX            |

### **Packing Units**

| Unit Type Of Package 1       | PCE                        |  |
|------------------------------|----------------------------|--|
| Number Of Units In Package 1 | 1                          |  |
| Package 1 Height             | 2.05 in (5.200 cm)         |  |
| Package 1 Width              | 3.66 in (9.300 cm)         |  |
| Package 1 Length             | 4.45 in (11.300 cm)        |  |
| Package 1 Weight             | 14.67 oz (416.000 g)       |  |
| Unit Type Of Package 2       | S02                        |  |
| Number Of Units In Package 2 | 20                         |  |
| 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             | 18.78 lb(US) (8.520 kg)    |  |
| Unit Type Of Package 3       | P06                        |  |
| Number Of Units In Package 3 | 320                        |  |
| Package 3 Height             | 29.53 in (75.000 cm)       |  |
| Package 3 Width              | 23.62 in (60.000 cm)       |  |
| Package 3 Length             | 31.50 in (80.000 cm)       |  |
| Package 3 Weight             | 322.02 lb(US) (146.064 kg) |  |

# **Contractual warranty**

Warranty 18 months



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Transparency RoHS/REACh

### Well-being performance



Reach Free Of Svhc



Pvc Free

#### **Certifications & Standards**

| Reach Regulation          | REACh Declaration   |
|---------------------------|---|
| Eu Rohs Directive         | Compliant EU RoHS Declaration   |
| China Rohs Regulation     | China RoHS declaration  Pro-active China RoHS declaration (out of China RoHS legal scope)   |
| Environmental Disclosure  | Product Environmental Profile   |
| Weee                      | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.  |
| Circularity Profile       | End of Life Information   |
| 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 www.P65Warnings.ca.gov |

#### **Dimensions Drawings**

#### **Approximate Dimensions**

