

## Product data sheet

### Characteristics

# LC1D38BL

IEC contactor, TeSys D, nonreversing, 38A, 20HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, low consumption 24VDC coil

Product availability : Stock - Normally stocked in distribution facility



Price\* : 241.00 USD



### Main

|                                |                                                                                                                                                                                                                                    |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                          | TeSys                                                                                                                                                                                                                              |
| Product name                   | TeSys D                                                                                                                                                                                                                            |
| Product or component type      | Contactor                                                                                                                                                                                                                          |
| Device short name              | LC1D                                                                                                                                                                                                                               |
| Contactor application          | Motor control<br>Resistive load                                                                                                                                                                                                    |
| Utilisation category           | AC-3<br>AC-1<br>AC-4                                                                                                                                                                                                               |
| Poles description              | 3P                                                                                                                                                                                                                                 |
| Power pole contact composition | 3 NO                                                                                                                                                                                                                               |
| [Ue] rated operational voltage | Power circuit <= 690 V AC 25...400 Hz<br>Power circuit: <= 300 V DC                                                                                                                                                                |
| [Ie] rated operational current | 50 A 140 °F (60 °C)) <= 440 V AC AC-1 power circuit<br>38 A 140 °F (60 °C)) <= 440 V AC AC-3 power circuit                                                                                                                         |
| Motor power kW                 | 18.5 kW 500 V AC 50/60 Hz AC-3)<br>18.5 kW 660...690 V AC 50/60 Hz AC-3)<br>7.5 kW 400 V AC 50/60 Hz AC-4)<br>18.5 kW 380...400 V AC 50/60 Hz AC-3)<br>9 kW 220...230 V AC 50/60 Hz AC-3)<br>18.5 kW 415...440 V AC 50/60 Hz AC-3) |
| Motor power HP (UL / CSA)      | 10 hp 230/240 V at AC 50/60 Hz for 3 phase<br>10 hp 200/208 V at AC 50/60 Hz for 3 phase<br>5 hp 240 V at AC 50/60 Hz for 1 phase<br>20 hp 480 V at AC 50/60 Hz for 3 phase<br>25 hp 600 V at AC 50/60 Hz for 3 phase              |
| Control circuit type           | DC low consumption                                                                                                                                                                                                                 |
| [Uc] control circuit voltage   | 24 V DC                                                                                                                                                                                                                            |

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

Jul 30, 2021

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|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Auxiliary contact composition               | 1 NO + 1 NC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| [Uimp] rated impulse withstand voltage      | 6 kV IEC 60947                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Overvoltage category                        | III                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| [Ith] conventional free air thermal current | 10 A 140 °F (60 °C) signalling circuit<br>50 A 140 °F (60 °C) power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Irms rated making capacity                  | 140 A AC signalling circuit IEC 60947-5-1<br>250 A DC signalling circuit IEC 60947-5-1<br>550 A 440 V power circuit IEC 60947                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Rated breaking capacity                     | 550 A 440 V power circuit IEC 60947                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| [Icw] rated short-time withstand current    | 60 A 104 °F (40 °C) - 10 min power circuit<br>430 A 104 °F (40 °C) - 1 s power circuit<br>150 A 104 °F (40 °C) - 1 min power circuit<br>310 A 104 °F (40 °C) - 10 s power circuit<br>100 A - 1 s signalling circuit<br>120 A - 500 ms signalling circuit<br>140 A - 100 ms signalling circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Associated fuse rating                      | 10 A gG signalling circuit IEC 60947-5-1<br>63 A gG ≤ 690 V type 1 power circuit<br>63 A gG ≤ 690 V type 2 power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Average impedance                           | 2 mOhm - Ith 50 A 50 Hz power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| [Ui] rated insulation voltage               | 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<br>Power circuit 690 V IEC 60947-4-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Electrical durability                       | 1.4 Mcycles 50 A AC-1 ≤ 440 V<br>1.4 Mcycles 38 A AC-3 ≤ 440 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Power dissipation per pole                  | 5 W AC-1<br>3 W AC-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Product certifications                      | GOST<br>UL<br>LROS (Lloyds register of shipping)<br>CCC<br>DNV<br>GL<br>CSA<br>RINA<br>BV                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Connections - terminals                     | Control circuit screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> )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> )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> )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> )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> )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> )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> )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> )flexible without cable end<br>Power circuit screw clamp terminals 1 0.00...0.02 in <sup>2</sup> (1...10 mm <sup>2</sup> )flexible with cable end<br>Power circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1.5...6 mm <sup>2</sup> )flexible with cable end<br>Power circuit screw clamp terminals 1 0.00...0.02 in <sup>2</sup> (1.5...10 mm <sup>2</sup> )solid 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> )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>Power circuit 22.13 lbf.in (2.5 N.m) screw clamp terminals flat Ø 6 mm<br>Power circuit 22.13 lbf.in (2.5 N.m) screw clamp terminals Philips No 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Operating time                              | 65.45...88.55 ms closing<br>20...30 ms opening                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Safety reliability level                    | B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

B10d = 20000000 cycles contactor with mechanical load 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...0.3 Uc -40...158 °F (-40...70 °C) drop-out DC<br>0.8...1.25 Uc -40...140 °F (-40...60 °C) operational DC<br>1...1.25 Uc 140...158 °F (60...70 °C) operational DC |
| Time constant                  | 40 ms                                                                                                                                                                  |
| Inrush power in W              | 2.4 W 68 °F (20 °C))                                                                                                                                                   |
| Hold-in power consumption in W | 2.4 W 68 °F (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 signalling circuit                                                                                                                                                |
| Minimum switching voltage      | 17 V 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...140 °F (-40...60 °C)<br>140...158 °F (60...70 °C) with derating                                                                                                             |
| Ambient air temperature for storage   | -76...176 °F (-60...80 °C)                                                                                                                                                        |
| Operating altitude                    | 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                            | 1.19 lb(US) (0.54 kg)                                                                                                                                                             |

## Ordering and shipping details

|                       |                                      |
|-----------------------|--------------------------------------|
| Category              | 22354 - CTR, TESYS D, OPEN, 9-38A AC |
| Discount Schedule     | I12                                  |
| GTIN                  | 03389110361896                       |
| Nbr. of units in pkg. | 1                                    |
| Package weight(Lbs)   | 21.02 oz (596 g)                     |
| Returnability         | Yes                                  |
| Country of origin     | ID                                   |

## Packing Units

|                        |                   |
|------------------------|-------------------|
| Unit Type of Package 1 | PCE               |
| Package 1 Height       | 1.97 in (5 cm)    |
| Package 1 width        | 3.62 in (9.2 cm)  |
| Package 1 Length       | 4.41 in (11.2 cm) |

## 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>                                                                                                                                                                                                                         |
| REACH free of SVHC         | Yes                                                                                                                                                                                                                                                       |
| EU RoHS Directive          | Compliant<br><a href="#">EU RoHS Declaration</a>                                                                                                                                                                                                          |
| Toxic heavy metal free     | Yes                                                                                                                                                                                                                                                       |
| Mercury free               | Yes                                                                                                                                                                                                                                                       |
| RoHS exemption information | <a href="#">Yes</a>                                                                                                                                                                                                                                       |
| China RoHS Regulation      | <a href="#">China RoHS declaration</a><br>Pro-active China RoHS declaration (out of China RoHS legal scope)                                                                                                                                               |
| 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 |
|----------|-----------|