

# LC1D258BL

TeSys D contactor - 4P(2 NO + 2 NC) - AC-1 - <= 440 V 40 A - 24 V DC coil



Price\* : 114.12 GBP



## Main

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| Range                                       | TeSys                                                                                                                                                                                                                                                                                 |
| Product name                                | TeSys D                                                                                                                                                                                                                                                                               |
| Product or component type                   | Contactor                                                                                                                                                                                                                                                                             |
| Device short name                           | LC1D                                                                                                                                                                                                                                                                                  |
| Contactor application                       | Resistive load                                                                                                                                                                                                                                                                        |
| Utilisation category                        | AC-1                                                                                                                                                                                                                                                                                  |
| Poles description                           | 4P                                                                                                                                                                                                                                                                                    |
| Power pole contact composition              | 2 NO + 2 NC                                                                                                                                                                                                                                                                           |
| [Ue] rated operational voltage              | Power circuit: <= 690 V AC 25...400 Hz<br>Power circuit: <= 300 V DC                                                                                                                                                                                                                  |
| [Ie] rated operational current              | 40 A (at <60 °C) at <= 440 V AC AC-1 for power circuit                                                                                                                                                                                                                                |
| Control circuit type                        | DC low consumption                                                                                                                                                                                                                                                                    |
| [Uc] control circuit voltage                | 24 V DC                                                                                                                                                                                                                                                                               |
| Auxiliary contact composition               | 1 NO + 1 NC                                                                                                                                                                                                                                                                           |
| [Uimp] rated impulse withstand voltage      | 6 kV conforming to IEC 60947                                                                                                                                                                                                                                                          |
| Overvoltage category                        | III                                                                                                                                                                                                                                                                                   |
| [Ith] conventional free air thermal current | 10 A (at 60 °C) for signalling circuit<br>40 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>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                                                                                                                                                                                                                              |
| [Icw] rated short-time withstand current    | 240 A 40 °C - 10 s for power circuit<br>380 A 40 °C - 1 s for power circuit<br>50 A 40 °C - 10 min for power circuit<br>120 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                                                                                                                                                                                                                            |

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|                               | 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 - Ith 40 A 50 Hz for power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| [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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Electrical durability         | 1.4 Mcycles 40 A AC-1 at Ue ≤ 440 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Power dissipation per pole    | 3.2 W AC-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Safety 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        | CCC<br>DNV<br>LROS (Lloyds register of shipping)<br>RINA<br>GL<br>CSA<br>BV<br>GOST<br>UL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Connections - terminals       | Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> flexible without cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> flexible without cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> flexible with cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm <sup>2</sup> flexible with cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> solid without cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> solid without cable end<br>Power circuit: connector 1 cable(s) 2.5...10 mm <sup>2</sup> flexible without cable end<br>Power circuit: connector 2 cable(s) 2.5...10 mm <sup>2</sup> flexible without cable end<br>Power circuit: connector 1 cable(s) 2.5...10 mm <sup>2</sup> flexible with cable end<br>Power circuit: connector 2 cable(s) 2.5...10 mm <sup>2</sup> flexible with cable end<br>Power circuit: connector 1 cable(s) 2.5...16 mm <sup>2</sup> solid without cable end<br>Power circuit: connector 2 cable(s) 2.5...16 mm <sup>2</sup> 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: 1.8 N.m - on connector - with screwdriver flat Ø 6 mm<br>Power circuit: 1.8 N.m - on connector - with screwdriver 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 conforming to EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical load conforming to 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 | Drop-out: 0.1...0.3 Uc DC (at 60 °C)<br>Operational: 0.8...1.25 Uc DC (at 60 °C)                                         |
| Time constant                  | 40 ms                                                                                                                    |
| Inrush power in W              | 2.4 W (at 20 °C)                                                                                                         |
| Hold-in power consumption in W | 2.4 W at 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 for signalling circuit                                                                                              |
| Minimum switching voltage      | 17 V for signalling circuit                                                                                              |

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| 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                 | -5...60 °C                                                                                                                                                                        |
| Ambient air temperature for storage                   | -60...80 °C                                                                                                                                                                       |
| Permissible ambient air temperature around the device | -40...70 °C at U <sub>c</sub>                                                                                                                                                     |
| Operating altitude                                    | 3000 m without                                                                                                                                                                    |
| 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                                                | 91 mm                                                                                                                                                                             |
| Width                                                 | 45 mm                                                                                                                                                                             |
| Depth                                                 | 107 mm                                                                                                                                                                            |
| Product weight                                        | 0.585 kg                                                                                                                                                                          |

## Offer Sustainability

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|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                       |
| 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>                                                                                      |
| 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 |

## Contractual warranty

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