

# LC2D38KUE

TeSys D reversing contactor - 3P -  $\leq 440$  V -  
38 A AC-3 - 100...250 V AC/DC coil





## Main

|                                             |                                                                                                                                                                                                                                                                           |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                       | TeSys                                                                                                                                                                                                                                                                     |
| Product name                                | TeSys D Green                                                                                                                                                                                                                                                             |
| Product or component type                   | Reversing contactor                                                                                                                                                                                                                                                       |
| Device short name                           | LC2D                                                                                                                                                                                                                                                                      |
| Contactor application                       | Resistive load<br>Motor control                                                                                                                                                                                                                                           |
| Utilisation category                        | AC-3<br>AC-1                                                                                                                                                                                                                                                              |
| Device presentation                         | Preassembled with reversing power busbar                                                                                                                                                                                                                                  |
| Poles description                           | 3P                                                                                                                                                                                                                                                                        |
| Power pole contact composition              | 3 NO                                                                                                                                                                                                                                                                      |
| [Ue] rated operational voltage              | Power circuit ≤ 690 V AC 25...400 Hz                                                                                                                                                                                                                                      |
| [Ie] rated operational current              | 50 A (at ≤ 60 °C) at ≤ 440 V AC AC-1 for power circuit<br>38 A (at ≤ 60 °C) at ≤ 440 V AC AC-3 for power circuit                                                                                                                                                          |
| Motor power kW                              | 9 kW at 220...230 V AC 50 Hz<br>18.5 kW at 380...400 V AC 50 Hz<br>18.5 kW 415 V AC 50 Hz<br>18.5 kW 440 V AC 50 Hz<br>18.5 kW at 500 V AC 50 Hz<br>18.5 kW at 660...690 V AC 50 Hz                                                                                       |
| Motor power HP (UL / CSA)                   | 2 Hp 115 V AC 60 Hz 1 phase<br>5 Hp at 230/240 V AC 60 Hz for 1 phase motors<br>10 Hp at 200/208 V AC 60 Hz for 3 phases motors<br>10 Hp at 230/240 V AC 60 Hz for 3 phases motors<br>20 Hp 460/480 V AC 60 Hz 3 phase<br>25 hp at 575/600 V AC 60 Hz for 3 phases motors |
| Control circuit type                        | AC 50/60 Hz AC/DC electronic<br>DC AC/DC electronic                                                                                                                                                                                                                       |
| [Uc] control circuit voltage                | 100...250 V AC 50/60 Hz<br>100...250 V DC                                                                                                                                                                                                                                 |
| 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 (at 60 °C) for 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 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 current    | 100 A - 1 s signalling circuit<br>120 A - 500 ms signalling circuit<br>140 A - 100 ms signalling circuit<br>430 A 40 °C - 1 s for power circuit<br>60 A 40 °C - 10 min for power circuit<br>150 A 40 °C - 1 min for power circuit<br>310 A 40 °C - 10 s for power 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 at ≤ 690 V coordination type 2 for power circuit                                                                                                                              |
| Average impedance                           | 2 mOhm - Ith 50 A 50 Hz for power circuit                                                                                                                                                                                                                                 |
| [Ui] rated insulation voltage               | Power circuit 690 V IEC 60947-4-1<br>Signalling circuit 690 V IEC 60947-1                                                                                                                                                                                                 |
| Electrical durability                       | 1.8 Mcycles 35 A AC-3 ≤ 440 V<br>0.9 Mcycles 50 A AC-1 ≤ 440 V                                                                                                                                                                                                            |

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|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power dissipation per pole | 5 W AC-1<br>3 W AC-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Front cover                | With                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Interlocking type          | Mechanical                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Mounting support           | Rail<br>Plate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Standards                  | EN/IEC 60947-4-1<br>EN/IEC 60947-5-1<br>UL 60947-4-1<br>CSA C22.2 No 60947-4-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Product certifications     | CCC<br>CSA<br>EAC<br>UL<br>KC<br>DNV-GL<br>LROS (Lloyds register of shipping)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Connections - terminals    | Control circuit screw clamp terminals 1 0.00...<br>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...<br>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...<br>0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible with cable end<br>Control circuit screw clamp terminals 2 0.00...<br>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...<br>0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid<br>Control circuit screw clamp terminals 2 0.00...<br>0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid<br>Power circuit screw clamp terminals 1 0.00...0.02 in <sup>2</sup><br>(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><br>(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><br>(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><br>(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><br>(1.5...10 mm <sup>2</sup> )solid<br>Power circuit screw clamp terminals 2 0.00...0.02 in <sup>2</sup><br>(2.5...10 mm <sup>2</sup> )solid |
| Tightening torque          | Control circuit 15.05 lbf.in (1.7 N.m) screw clamp<br>terminals flat Ø 6 mm<br>Control circuit 15.05 lbf.in (1.7 N.m) screw clamp<br>terminals Philips No 2<br>Power circuit 22.13 lbf.in (2.5 N.m) screw clamp<br>terminals flat Ø 6 mm<br>Power circuit 22.13 lbf.in (2.5 N.m) screw clamp<br>terminals Philips No 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Operating time             | 45...55 ms closing<br>20...90 ms opening                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Safety reliability level   | B10d = 1369863 cycles contactor with nominal load<br>EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical<br>load EN/ISO 13849-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Mechanical durability      | 15 Mcycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Maximum operating rate     | 3600 cyc/h 140 °F (60 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

## Complementary

|                                 |                                                                                                                                                                             |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Coil technology                 | Built-in bidirectional peak limiting                                                                                                                                        |
| Control circuit voltage limits  | <= 0.1 Uc -40...158 °F (-40...70 °C) drop-out AC/DC<br>0.85...1.1 Uc -40...140 °F (-40...60 °C) operational AC/DC<br>1...1.1 Uc 140...158 °F (60...70 °C) operational AC/DC |
| Inrush power in VA              | 25 VA 50/60 Hz 68 °F (20 °C))                                                                                                                                               |
| Inrush power in W               | 18 W 68 °F (20 °C)                                                                                                                                                          |
| Hold-in power consumption in VA | 1.6 VA 68 °F (20 °C)) 50/60 Hz                                                                                                                                              |
| Hold-in power consumption in W  | 1.1 W 68 °F (20 °C)                                                                                                                                                         |
| Heat dissipation                | 1.1 W 50/60 Hz                                                                                                                                                              |
| Auxiliary contacts type         | Mechanically linked 1 NO + 1 NC IEC 60947-5-1<br>Mirror contact 1 NC IEC 60947-4-1                                                                                          |

|                              |                                                                                                         |
|------------------------------|---------------------------------------------------------------------------------------------------------|
| Signalling circuit frequency | 25...400 Hz                                                                                             |
| Minimum switching 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 signalling circuit                                                                            |
| Compatibility code           | LC2D                                                                                                    |

## Environment

|                                       |                                                                                                                                                                           |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IP degree of protection               | IP20 front face IEC 60529                                                                                                                                                 |
| Protective treatment                  | TH 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...9842.52 ft (0...3000 m)                                                                                                                                               |
| Fire resistance                       | 1562 °F (850 °C) IEC 60695-2-1                                                                                                                                            |
| Flame retardance                      | V1 UL 94                                                                                                                                                                  |
| Mechanical robustness                 | Vibrations contactor open2 Gn, 5...300 Hz<br>Vibrations contactor closed4 Gn, 5...300 Hz<br>Shocks contactor closed15 Gn for 11 ms<br>Shocks contactor open8 Gn for 11 ms |
| Height                                | 3.35 in (85 mm)                                                                                                                                                           |
| Maximum Width                         | 3.54 in (90 mm)                                                                                                                                                           |
| Depth                                 | 3.62 in (92 mm)                                                                                                                                                           |
| Net Weight                            | 2.06 lb(US) (0.933 kg)                                                                                                                                                    |
| Color                                 | Gray SE GREY 6)<br>Green SE GREEN 2)                                                                                                                                      |

## Ordering and shipping details

|                       |                                               |
|-----------------------|-----------------------------------------------|
| Category              | 22356 - CTR, TESYS D, OPEN, 9-65A AC/DC GREEN |
| Discount Schedule     | I12                                           |
| GTIN                  | 03606480988073                                |
| Nbr. of units in pkg. | 1                                             |
| Package weight(Lbs)   | 2.06 lb(US) (0.93 kg)                         |
| Returnability         | No                                            |

## Packing Units

|                              |                         |
|------------------------------|-------------------------|
| Unit Type of Package 1       | PCE                     |
| Package 1 Height             | 4.53 in (11.5 cm)       |
| Package 1 width              | 4.45 in (11.3 cm)       |
| Package 1 Length             | 5.51 in (14 cm)         |
| Unit Type of Package 2       | S02                     |
| Number of Units in Package 2 | 5                       |
| Package 2 Weight             | 11.96 lb(US) (5.425 kg) |
| Package 2 Height             | 5.91 in (15 cm)         |
| Package 2 width              | 11.81 in (30 cm)        |
| Package 2 Length             | 15.75 in (40 cm)        |

## Offer Sustainability

|                            |                                                                                                                                   |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                             |
| REACH Regulation           |  <a href="#">REACH Declaration</a>             |
| EU RoHS Directive          | Compliant  <a href="#">EU RoHS Declaration</a> |
| 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.    |
| Halogen content performance | Halogen free plastic parts & cables product                                                                                     |
| <b>Contractual warranty</b> |                                                                                                                                 |
| Warranty                    | 18 months                                                                                                                       |