

# LC2D50AN7

TeSys D reversing contactor - 3P(3 NO) - AC-3 -  
≤ 440 V 50 A - 415 V AC coil

Product availability : Non-Stock - Not normally stocked in distribution facility



## Main

|                                |                                                                                                                                                                                                                  |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                          | TeSys                                                                                                                                                                                                            |
| Product name                   | TeSys D                                                                                                                                                                                                          |
| Product or component type      | Reversing contactor                                                                                                                                                                                              |
| Device short name              | LC2D                                                                                                                                                                                                             |
| Contact application            | Resistive load<br>Motor control                                                                                                                                                                                  |
| Utilisation category           | AC-1<br>AC-3                                                                                                                                                                                                     |
| Device presentation            | Preamsembled 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<br>Power circuit ≤ 300 V DC                                                                                                                                                 |
| [Ie] rated operational current | 50 A 140 °F (60 °C)) ≤ 440 V AC AC-3 power circuit<br>80 A 140 °F (60 °C)) ≤ 440 V AC AC-1 power circuit                                                                                                         |
| Motor power kW                 | 15 kW 220...230 V AC 50 Hz<br>22 kW 380...400 V AC 50 Hz<br>30 kW 500 V AC 50 Hz<br>33 kW 660...690 V AC 50 Hz<br>25 kW 415 V AC 50 Hz<br>30 kW 440 V AC 50 Hz                                                   |
| Motor power HP (UL / CSA)      | 3 hp 115 V AC 60 Hz 1 phase<br>7.5 hp 230/240 V AC 60 Hz 1 phase<br>15 hp 200/208 V AC 60 Hz 3 phase<br>15 hp 230/240 V AC 60 Hz 3 phase<br>40 hp 460/480 V AC 60 Hz 3 phase<br>40 hp 575/600 V AC 60 Hz 3 phase |
| Control circuit type           | AC 50/60 Hz                                                                                                                                                                                                      |
| [Uc] control circuit voltage   | 415 V AC 50/60 Hz                                                                                                                                                                                                |
| Auxiliary contact composition  | 1 NO + 1 NC                                                                                                                                                                                                      |

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|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [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>80 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>900 A 440 V power circuit IEC 60947                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Rated breaking capacity                     | 900 A 440 V power circuit IEC 60947                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| [Icw] rated short-time withstand current    | 400 A 104 °F (40 °C) - 10 s power circuit<br>810 A 104 °F (40 °C) - 1 s power circuit<br>84 A 104 °F (40 °C) - 10 min power circuit<br>208 A 104 °F (40 °C) - 1 min 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>100 A gG ≤ 690 V type 1 power circuit<br>100 A gG ≤ 690 V type 2 power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Average impedance                           | 1.5 mOhm - Ith 80 A 50 Hz power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| [Ui] rated insulation voltage               | Power circuit 690 V IEC 60947-4-1<br>Power circuit 600 V CSA<br>Power circuit 600 V UL<br>Signalling circuit 690 V IEC 60947-1<br>Signalling circuit 600 V CSA<br>Signalling circuit 600 V UL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Electrical durability                       | 1.45 Mcycles 50 A AC-3 ≤ 440 V<br>1.1 Mcycles 80 A AC-1 ≤ 440 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Power dissipation per pole                  | 3.7 W AC-3<br>9.6 W AC-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Safety cover                                | With                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Interlocking type                           | Mechanical                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 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                      | CSA<br>UL<br>GOST<br>CCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Connections - terminals                     | 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 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> )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 EverLink BTR screw connectors 1 0.00...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> )flexible without cable end<br>Power circuit EverLink BTR screw connectors 2 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> )flexible without cable end<br>Power circuit EverLink BTR screw connectors 1 0.00...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> )flexible with cable end<br>Power circuit EverLink BTR screw connectors 2 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> )flexible with cable end<br>Power circuit EverLink BTR screw connectors 1 0.00...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> )solid without cable end<br>Power circuit EverLink BTR screw connectors 2 0.00...0.04 in <sup>2</sup> (1...25 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 70.81 lbf.in (8 N.m) EverLink BTR screw connectors 0.04...0.05 in <sup>2</sup> (25...35 mm <sup>2</sup> )<br>hexagonal 0.16 in (4 mm)<br>Power circuit 44.25 lbf.in (5 N.m) EverLink BTR screw connectors 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> )<br>hexagonal 0.16 in (4 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Operating time                              | 4...19 ms opening<br>12...26 ms closing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Safety reliability level                    | B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Mechanical durability                       | 6 Mcycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

|                        |                           |
|------------------------|---------------------------|
| Maximum operating rate | 3600 cyc/h 140 °F (60 °C) |
|------------------------|---------------------------|

## Complementary

|                                 |                                                                                                                                                              |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Coil technology                 | Without built-in suppressor module                                                                                                                           |
| Control circuit voltage limits  | Drop-out 0.3...0.6 Uc AC 50/60 Hz 140 °F (60 °C))<br>Operational 0.8...1.1 Uc AC 50 Hz 140 °F (60 °C))<br>Operational 0.85...1.1 Uc AC 60 Hz 140 °F (60 °C)) |
| Inrush power in VA              | 140 VA 60 Hz 0.75 68 °F (20 °C))<br>160 VA 50 Hz 0.75 68 °F (20 °C))                                                                                         |
| Hold-in power consumption in VA | 13 VA 60 Hz 0.3 68 °F (20 °C))<br>15 VA 50 Hz 0.3 68 °F (20 °C))                                                                                             |
| Heat dissipation                | 4...5 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                                                                                                                                 |

## 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                 | 23...140 °F (-5...60 °C)                                                                                                                                                   |
| Ambient air temperature for storage                   | -76...176 °F (-60...80 °C)                                                                                                                                                 |
| Permissible ambient air temperature around the device | -40...158 °F (-40...70 °C) at Uc                                                                                                                                           |
| Operating altitude                                    | 9842.52 ft (3000 m) without                                                                                                                                                |
| 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 open10 Gn for 11 ms<br>Shocks contactor closed15 Gn for 11 ms |
| Height                                                | 4.80 in (122 mm)                                                                                                                                                           |
| Width                                                 | 4.69 in (119 mm)                                                                                                                                                           |
| Depth                                                 | 4.72 in (120 mm)                                                                                                                                                           |
| Net weight                                            | 4.14 lb(US) (1.88 kg)                                                                                                                                                      |

## Ordering and shipping details

|                   |                                       |
|-------------------|---------------------------------------|
| Category          | 22357 - CTR, TESYS D, OPEN, 40-65A AC |
| Discount Schedule | I12                                   |
| GTIN              | 03389118339767                        |
| Returnability     | No                                    |
| Country of origin | FR                                    |

## Offer Sustainability

|                          |                                                  |
|--------------------------|--------------------------------------------------|
| 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

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