

# LC2DT40E7

TeSys Deca changeover  
contactor, 4P(4NO), AC-1, <=440V 40A, 48V AC  
coil



## Main

|                                             |                                                                                                                                                                                                                                                                                       |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                       | TeSys<br>TeSys Deca                                                                                                                                                                                                                                                                   |
| Product name                                | TeSys Deca                                                                                                                                                                                                                                                                            |
| Product or component type                   | Changeover contactor                                                                                                                                                                                                                                                                  |
| Device short name                           | LC2D                                                                                                                                                                                                                                                                                  |
| Contactor application                       | Resistive load                                                                                                                                                                                                                                                                        |
| Utilisation category                        | AC-1<br>AC-3<br>AC-3e<br>AC-4                                                                                                                                                                                                                                                         |
| Device presentation                         | Preamsembled with reversing power busbar                                                                                                                                                                                                                                              |
| Poles description                           | 4P                                                                                                                                                                                                                                                                                    |
| Pole contact composition                    | 4 NO                                                                                                                                                                                                                                                                                  |
| [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                        | AC at 50/60 Hz                                                                                                                                                                                                                                                                        |
| [Uc] control circuit voltage                | 48 V AC 50/60 Hz                                                                                                                                                                                                                                                                      |
| 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    | 50 A 40 °C - 10 min for power circuit<br>120 A 40 °C - 1 min for power circuit<br>240 A 40 °C - 10 s for power circuit<br>380 A 40 °C - 1 s 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<br>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                                                                                                                                                                                                                                             |

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| [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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Protective 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<br>IEC 60335-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Product certifications        | UL<br>CSA<br>CCC<br>EAC<br>UKCA<br>CB<br>EU-RO-MR by DNV-GL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 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: 1.7 N.m - on connector - with screwdriver flat Ø 6 mm<br>Power circuit: 1.7 N.m - on connector - with screwdriver Philips No 2<br>Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver-pozidriv No 2<br>Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver-pozidriv No 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Operating time                | 12...22 ms closing<br>4...19 ms opening                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Safety reliability level      | B10d = 1369863 cycles contactor with nominal load conforming-<br>to EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical load conforming-<br>to EN/ISO 13849-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Mechanical durability         | 15 Mcycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Maximum operating rate        | 3600 Cyc/H 60 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

## Complementary

|                                 |                                                                                                                                                        |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Coil technology                 | Without built-in suppressor module                                                                                                                     |
| Control circuit voltage limits  | 0.3...0.6 Uc (-40...60 °C):drop-out AC 50/60 Hz<br>0.8...1.1 Uc (-40...60 °C):operational AC 50 Hz<br>0.85...1.1 Uc (-40...60 °C):operational AC 60 Hz |
| Inrush power in VA              | 70 VA 60 Hz cos phi 0.75 (at 20 °C)<br>70 VA 50 Hz cos phi 0.75 (at 20 °C)                                                                             |
| Hold-in power consumption in VA | 7.5 VA (at 20 °C) cos phi 0.3 60 Hz<br>7 VA (at 20 °C) cos phi 0.3 50 Hz                                                                               |
| Heat dissipation                | 2...3 W at 50/60 Hz                                                                                                                                    |
| 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                                                                             |
| 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                                                                                                                                           |
| Climatic withstand                    | Conforming to IACS E10<br>conforming to IEC 60947-1 Annex Q category D                                                                                                            |
| Protective treatment                  | TH conforming to IEC 60068-2-30                                                                                                                                                   |
| Pollution degree                      | 3                                                                                                                                                                                 |
| Ambient air temperature for operation | -40...60 °C<br>60...70 °C with derating                                                                                                                                           |
| Ambient air temperature for storage   | -60...80 °C                                                                                                                                                                       |
| Operating altitude                    | 0...3000 m                                                                                                                                                                        |
| 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                                 | 90 Mm                                                                                                                                                                             |
| Depth                                 | 98 Mm                                                                                                                                                                             |
| Net weight                            | 0.85 Kg                                                                                                                                                                           |

## Packing Units

|                              |           |
|------------------------------|-----------|
| Unit Type of Package 1       | PCE       |
| Number of Units in Package 1 | 1         |
| Package 1 Height             | 11.500 Cm |
| Package 1 Width              | 11.600 Cm |
| Package 1 Length             | 14.200 Cm |
| Package 1 Weight             | 1.026 Kg  |
| Unit Type of Package 2       | S02       |
| Number of Units in Package 2 | 5         |
| Package 2 Height             | 15.000 Cm |
| Package 2 Width              | 30.000 Cm |
| Package 2 Length             | 40.000 Cm |
| Package 2 Weight             | 5.416 Kg  |

## Offer Sustainability

|                            |                                                                                                                                   |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                             |
| REACH Regulation           |  <a href="#">REACH Declaration</a>             |
| REACH free of SVHC         | Yes                                                                                                                               |
| EU RoHS Directive          | Compliant  <a href="#">EU RoHS Declaration</a> |
| Toxic heavy metal free     | Yes                                                                                                                               |
| Mercury free               | Yes                                                                                                                               |
| China RoHS Regulation      |  <a href="#">China RoHS Declaration</a>        |
| RoHS exemption information |  <a href="#">Yes</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       |

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|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PVC free                  | Yes                                                                                                                                                                                                                                                       |
| California proposition 65 | WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |

#### Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 18 months |
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|                       |                |
|-----------------------|----------------|
| Product Life Status : | Commercialised |
|-----------------------|----------------|