

# LC2DT25N7

TeSys D changeover contactor - 4P(4 NO) - AC-1  
- <= 440 V 25 A - 415 V AC coil



ⓘ Discontinued

LC2DT25N7 has not been replaced. Please contact your customer care center for more information.

## Main

|   |  |
|---|--|
| Range                                       | TeSys  |
| Product name                                | TeSys D  |
| Product or component type                   | Changeover contactor   |
| Device short name                           | LC2D   |
| Contactor application                       | Resistive load   |
| Utilisation category                        | AC-1   |
| Device presentation                         | Preassembled, with prewired power connections  |
| Poles description                           | 4P   |
| Power pole contact composition              | 4 NO   |
| [Ue] rated operational voltage              | <= 300 V DC for power circuit<br><= 690 V AC 25...400 Hz for power circuit   |
| [Ie] rated operational current              | 25 A (<= 60 °C) at <= 440 V AC AC-1 for power circuit  |
| Control circuit type                        | AC 50/60 Hz  |
| [Uc] control circuit voltage                | 415 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 | 25 A at <= 60 °C for power circuit<br>10 A at <= 60 °C for signalling circuit  |
| Irms rated making capacity                  | 250 A at 440 V for power circuit conforming to IEC 60947<br>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   |
| Rated breaking capacity                     | 250 A at 440 V for power circuit conforming to IEC 60947   |
| [Icw] rated short-time withstand current    | 105 A <= 40 °C 10 s power circuit<br>210 A <= 40 °C 1 s power circuit<br>30 A <= 40 °C 10 min power circuit<br>61 A <= 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                      | 25 A gG at <= 690 V coordination type 2 for power circuit<br>40 A gG at <= 690 V coordination type 1 for power circuit<br>10 A gG for signalling circuit conforming to IEC 60947-5-1   |
| Average impedance                           | 2.5 mOhm at 50 Hz - Ith 25 A for power circuit   |
| [Ui] rated insulation voltage               | 600 V for power circuit certifications CSA<br>600 V for power circuit certifications UL  |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

690 V for power circuit conforming to IEC 60947-4-1  
 690 V for signalling circuit conforming to IEC 60947-1  
 600 V for signalling circuit certifications CSA  
 600 V for signalling circuit certifications UL

|                            |  |
|----------------------------|--|
| Electrical durability      | 0.8 Mcycles 25 A AC-1 at $U_e \leq 440$ V  |
| Power dissipation per pole | 1.56 W AC-1  |
| Safety cover               | With   |
| Interlocking type          | Mechanical   |
| Mounting support           | Plate<br>Rail  |
| 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     | BV<br>CCC<br>CSA<br>DNV<br>GL<br>GOST<br>LROS (Lloyds register of shipping)<br>RINA<br>UL  |
| Connections - terminals    | Control circuit : screw clamp terminals 2 cable(s) 1...2.5 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Power circuit : screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Control circuit : screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Control circuit : screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Control circuit : screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Control circuit : screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: solid - without cable end<br>Control circuit : screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: solid - without cable end<br>Power circuit : screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Power circuit : screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Power circuit : screw clamp terminals 2 cable(s) 1...2.5 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Power circuit : screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: solid - without cable end<br>Power circuit : screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: solid - without cable end |
| Tightening torque          | Power circuit : 1.7 N.m - on screw clamp terminals - with screwdriver flat $\varnothing$ 6 mm<br>Power circuit : 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2<br>Control circuit : 1.7 N.m - on screw clamp terminals - with screwdriver flat $\varnothing$ 6 mm<br>Control circuit : 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2   |
| Operating time             | 4...19 ms opening<br>12...22 ms closing  |
| Safety reliability level   | B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1<br>B10d = 2000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1  |
| Mechanical durability      | 15 Mcycles   |
| Operating rate             | $\leq 3600$ cyc/h at $\leq 60$ °C  |

## Complementary

|                                 |   |
|---------------------------------|---|
| Coil technology                 | Without built-in suppressor module  |
| Control circuit voltage limits  | 0.3...0.6 $U_c$ drop-out at 60 °C, AC 50/60 Hz<br>0.8...1.1 $U_c$ operational at 60 °C, AC 50 Hz<br>0.85...1.1 $U_c$ operational at 60 °C, AC 60 Hz |
| Inrush power in VA              | 70 VA at 20 °C (cos $\phi$ 0.75) 60 Hz<br>70 VA at 20 °C (cos $\phi$ 0.75) 50 Hz  |
| 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 Signalling circuit   |
| Non-overlap time          | 1.5 ms on de-energisation (between NC and NO contact)<br>1.5 ms on energisation (between NC and NO contact) |
| Insulation resistance     | > 10 MOhm for signalling circuit  |

## Environment

|   |  |
|---|--|
| IP degree of protection                               | IP20 front face conforming to IEC 60529  |
| Protective treatment                                  | TH conforming to IEC 60068-2-30  |
| Pollution degree                                      | 3  |
| Ambient air temperature for operation                 | -5...60 °C   |
| Ambient air temperature for storage                   | -60...80 °C  |
| Permissible ambient air temperature around the device | -40...70 °C at U <sub>c</sub>  |
| Operating altitude                                    | 3000 m without derating  |
| 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 open 10 Gn for 11 ms<br>Shocks contactor closed 15 Gn for 11 ms |
| Height  | 85 mm  |
| Width   | 90 mm  |
| Depth   | 90 mm  |
| Product weight  | 0.73 kg  |

## Contractual warranty

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