

# LC2DT25BD

TeSys D changeover contactor - 4P(4 NO) -  
AC-1 -  $\leq 440$  V 25 A - 24 V DC coil



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## Main

Range	TeSys
Product name	TeSys D
Product or component type	Changeover contactor
Device short name	LC2D
Contactors 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	Power circuit: $\leq 690$ V AC 25...400 Hz Power circuit: $\leq 300$ V DC
[Ie] rated operational current	25 A (at $\leq 60$ °C) at $\leq 440$ V AC AC-1 for power circuit
Control circuit type	DC standard
[Uc] control circuit voltage	24 V DC
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947
Overtoltage category	III
[Ith] conventional free air thermal current	10 A (at 60 °C) for signalling circuit 25 A (at 60 °C) for power circuit
Irms rated making capacity	250 A at 440 V for power circuit conforming to IEC 60947 140 A AC for signalling circuit conforming to IEC 60947-5-1 250 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	30 A 40 °C - 10 min for power circuit 61 A 40 °C - 1 min for power circuit 105 A 40 °C - 10 s for power circuit 210 A 40 °C - 1 s for power circuit 100 A - 1 s for signalling circuit 120 A - 500 ms for signalling circuit 140 A - 100 ms for signalling circuit
Associated fuse rating	10 A gG for signalling circuit conforming to IEC 60947-5-1 40 A gG at $\leq 690$ V coordination type 1 for power circuit 25 A gG at $\leq 690$ V coordination type 2 for power circuit
Average impedance	2.5 mOhm - Ith 25 A 50 Hz for power circuit
[Ui] rated insulation voltage	Power circuit: 690 V conforming to IEC 60947-4-1 Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Signalling circuit: 690 V conforming to IEC 60947-1 Signalling circuit: 600 V CSA certified Signalling circuit: 600 V UL certified
Electrical durability	0.8 Mcycles 25 A AC-1 at Ue $\leq 440$ V
Power dissipation per pole	1.56 W AC-1
Front cover	With
Interlocking type	Mechanical
Mounting support	Plate Rail

Standards	CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508
Product certifications	UL LROS (Lloyds register of shipping) BV GOST GL CSA RINA DNV CCC
Connections - terminals	Power circuit: screw clamp terminals 1 cable(s) 1... 4 mm <sup>2</sup> flexible without cable end Power circuit: screw clamp terminals 2 cable(s) 1... 4 mm <sup>2</sup> flexible without cable end Power circuit: screw clamp terminals 1 cable(s) 1... 4 mm <sup>2</sup> flexible with cable end Power circuit: screw clamp terminals 2 cable(s) 1... 2.5 mm <sup>2</sup> flexible with cable end Power circuit: screw clamp terminals 1 cable(s) 1... 4 mm <sup>2</sup> solid Power circuit: screw clamp terminals 2 cable(s) 1... 4 mm <sup>2</sup> solid Control circuit: screw clamp terminals 1 cable(s) 1... 4 mm <sup>2</sup> flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1... 4 mm <sup>2</sup> flexible without cable end Control circuit: screw clamp terminals 1 cable(s) 1... 4 mm <sup>2</sup> flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1... 2.5 mm <sup>2</sup> flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1... 4 mm <sup>2</sup> solid Control circuit: screw clamp terminals 2 cable(s) 1... 4 mm <sup>2</sup> solid
Tightening torque	Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2 Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2
Operating time	53.55...72.45 ms closing 16...24 ms opening
Safety reliability level	B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1
Mechanical durability	30 Mcycles
Maximum operating rate	3600 cyc/h 60 °C

## Complementary

Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.1...0.25 U <sub>c</sub> (-40...70 °C):drop-out DC 0.7...1.25 U <sub>c</sub> (-40...60 °C):operational DC 1...1.25 U <sub>c</sub> (60...70 °C):operational DC
Time constant	28 ms
Inrush power in W	5.4 W (at 20 °C)
Hold-in power consumption in W	5.4 W at 20 °C
Auxiliary contacts type	Type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1 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 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	-40...60 °C 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 Vibrations contactor closed: 4 Gn, 5...300 Hz Shocks contactor open: 10 Gn for 11 ms Shocks contactor closed: 15 Gn for 11 ms
Height	85 mm
Width	90 mm
Depth	90 mm
Net weight	0.73 kg

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	1.2 kg
Package 1 Height	11.4 cm
Package 1 width	11.4 cm
Package 1 Length	13.7 cm
Unit Type of Package 2	S02
Number of Units in Package 2	5
Package 2 Weight	6.35 kg
Package 2 Height	15 cm
Package 2 width	30 cm
Package 2 Length	40 cm

## 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
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
PVC free	Yes

## Contractual warranty

Warranty	18 months
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