



# TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 25 A - 24 V DC coil

LC1D25BD

#### Main

Range of product	TeSys Deca	
Product or component type	Contactor	
Device short name	LC1D	
Contactor application	Motor control Resistive load	
Utilisation category	AC-4 AC-3 AC-1 AC-3e	
Poles description	3P	
[Ue] rated operational voltage	Power circuit: <= 690 V AC 25400 Hz Power circuit: <= 300 V DC	
[le] rated operational current	perational current  25 A (at <60 °C) at <= 440 V AC AC-3 for power circuit  40 A (at <60 °C) at <= 440 V AC AC-1 for power circuit  25 A (at <60 °C) at <= 440 V AC AC-3e for power circuit	
[Uc] control circuit voltage	24 V DC	

Complementary		
Motor power kW	5.5 kW at 220230 V AC 50/60 Hz (AC-3) 11 kW at 380400 V AC 50/60 Hz (AC-3) 11 kW at 415440 V AC 50/60 Hz (AC-3) 15 kW at 500 V AC 50/60 Hz (AC-3) 15 kW at 660690 V AC 50/60 Hz (AC-3) 5.5 kW at 400 V AC 50/60 Hz (AC-4) 5.5 kW at 220230 V AC 50/60 Hz (AC-3e) 11 kW at 380400 V AC 50/60 Hz (AC-3e) 11 kW at 415440 V AC 50/60 Hz (AC-3e) 15 kW at 500 V AC 50/60 Hz (AC-3e) 15 kW at 660690 V AC 50/60 Hz (AC-3e)	
Motor power hp	3 hp at 230/240 V AC 50/60 Hz for 1 phase motors 2 hp at 115 V AC 50/60 Hz for 1 phase motors 7.5 hp at 230/240 V AC 50/60 Hz for 3 phases motors 15 hp at 460/480 V AC 50/60 Hz for 3 phases motors 20 hp at 575/600 V AC 50/60 Hz for 3 phases motors 7.5 hp at 200/208 V AC 50/60 Hz for 3 phases motors	
Compatibility code	LC1D	
Pole contact composition	3 NO	
Contact compatibility	M4	
Protective cover	With	
[Ith] conventional free air thermal current	10 A (at 60 °C) for signalling circuit 40 A (at 60 °C) for power circuit	
Irms rated making capacity	140 A AC for signalling circuit conforming to IEC 60947-5-1	

	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	240 A 40 °C - 10 s for power circuit 380 A 40 °C - 1 s for power circuit 50 A 40 °C - 10 min for power circuit 120 A 40 °C - 1 min 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 63 A gG at <= 690 V coordination type 1 for power circuit 40 A gG at <= 690 V coordination type 2 for power circuit		
Average impedance	2 mOhm - Ith 40 A 50 Hz for power circuit		
Power dissipation per pole	3.2 W AC-1 1.25 W AC-3 1.25 W AC-3e		
[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		
Overvoltage category	III		
Pollution degree	3		
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947		
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		
Electrical durability	1.65 Mcycles 25 A AC-3 at Ue <= 440 V 1.4 Mcycles 40 A AC-1 at Ue <= 440 V 1.65 Mcycles 25 A AC-3e at Ue <= 440 V		
Control circuit type	DC standard		
Coil technology	Built-in bidirectional peak limiting diode suppressor		
Control circuit voltage limits	0.10.25 Uc (-4070 °C):drop-out DC 0.71.25 Uc (-4060 °C):operational DC 11.25 Uc (6070 °C):operational DC		
Inrush power in W	5.4 W (at 20 °C)		
Hold-in power consumption in W	5.4 W at 20 °C		
Operating time	53.5572.45 ms closing 1624 ms opening		
Time constant	28 ms		
Maximum operating rate	3600 cyc/h 60 °C		
Connections - terminals	Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 14 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 12.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 14 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 1 2.510 mm² - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 2 2.510 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 110 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 1.510 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 1 1.510 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 2.510 mm² - cable stiffness: solid without cable end		
Tightening torque	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 Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver Philips No 2 Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2 Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver pozidriv No 2		
	Fower circuit. 2.5 N.III - On sciew clamp terminals - with sciewaniver pozitini No 2		

	type mirror contact 1 NC conforming to IEC 60947-4-1		
Signalling circuit frequency	25400 Hz		
Minimum switching voltage	17 V for signalling circuit		
Minimum switching current	5 mA for signalling circuit		
Insulation resistance	> 10 MOhm 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		
Mounting support	Plate Rail		
Environment			
Standards	CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508 IEC 60335-1		
Product certifications	LROS (Lloyds register of shipping) BV GL CCC RINA GOST CSA DNV UL UKCA		
IP degree of protection	IP20 front face conforming to IEC 60529		
Protective treatment	TH conforming to IEC 60068-2-30		
Climatic withstand	conforming to IACS E10 exposure to damp heat conforming to IEC 60947-1 Annex Q category D exposure to damp heat		
Permissible ambient air temperature around the device	-4060 °C 6070 °C with derating		
Operating altitude	03000 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, 5300 Hz) Vibrations contactor closed (4 Gn, 5300 Hz) Shocks contactor closed (15 Gn for 11 ms) Shocks contactor open (8 Gn for 11 ms)		
Height	85 mm		
Width	45 mm		
Depth	101 mm		
Net weight	0.53 kg		
Packing Units			
Unit Type of Package 1	PCE		
Number of Units in Package 1	1		
Package 1 Height	5 cm		
Package 1 Width	9.3 cm		
Package 1 Length	11.3 cm		
Package 1 Weight	579 g		
Unit Type of Package 2	S02		
Number of Units in Package 2	15		
Package 2 Height	15 cm		

Package 2 Width	30 cm
Package 2 Length	40 cm
Package 2 Weight	9.012 kg
Unit Type of Package 3	P06
Number of Units in Package 3	240
Package 3 Height	75 cm
Package 3 Width	60 cm
Package 3 Length	80 cm
Package 3 Weight	152 kg

# Offer Sustainability

Sustainable offer status	Green Premium product	
REACh Regulation	REACh Declaration	
EU RoHS Directive	Compliant EU RoHS Declaration	
Mercury free	Yes	
China RoHS Regulation	China RoHS declaration Product out of China RoHS scope. Substance declaration for your information	
RoHS exemption information	Yes	
Environmental Disclosure	Product Environmental Profile	
Circularity Profile	End of Life Information	
PVC free	Yes	

## **Contractual warranty**

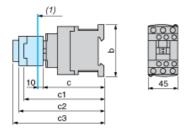
Warranty 18 months

## **Product datasheet**

# LC1D25BD

**Dimensions Drawings** 

#### **Dimensions**



#### (1) Minimum electrical clearance

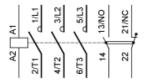
LC1		D25D38	D183D323
b		85	99
С	without cover or add-on blocks	99	99
	with cover, without add-on blocks	101	101
c1	with LAD N or C (2 or 4 contacts)	132	132
c2	with LA6 DK10	144	144
с3	with LAD T, R, S	152	152
	with LAD T, R, S and sealing cover	156	156

## **Product datasheet**

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Connections and Schema

#### Wiring



Recommended replacement(s)