# **Product datasheet**

Specifications



LC1D09BD TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 9 A - 24 V DC coil. As the best selling line of contactors in the world, TeSys D offers multi-standard solutions, high reliability with long mechanical and electrical durability for different sizes, along with the most complete accessories in the industry.

LC1D09BD

#### 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-1 AC-3 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	9 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 25 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 9 A (at <60 °C) at <= 440 V AC AC-3e for power circuit	
[Uc] control circuit voltage	24 V DC	

#### Complementary

Motor power kW	2.2 kW at 220230 V AC 50/60 Hz (AC-3)
	4 kW at 380400 V AC 50/60 Hz (AC-3)
	4 kW at 415440 V AC 50/60 Hz (AC-3)
	5.5 kW at 500 V AC 50/60 Hz (AC-3)
	5.5 kW at 660690 V AC 50/60 Hz (AC-3)
	2.2 kW at 400 V AC 50/60 Hz (AC-4)
	2.2 kW at 220230 V AC 50/60 Hz (AC-3e)
	4 kW at 380400 V AC 50/60 Hz (AC-3e)
	4 kW at 415440 V AC 50/60 Hz (AC-3e)
	5.5 kW at 500 V AC 50/60 Hz (AC-3e)
	5.5 kW at 660690 V AC 50/60 Hz (AC-3e)
Motor power hp	1 hp at 230/240 V AC 50/60 Hz for 1 phase motors
	2 hp at 200/208 V AC 50/60 Hz for 3 phases motors
	2 hp at 230/240 V AC 50/60 Hz for 3 phases motors
	5 hp at 460/480 V AC 50/60 Hz for 3 phases motors
	7.5 hp at 575/600 V AC 50/60 Hz for 3 phases motors
	0.33 hp at 115 V AC 50/60 Hz for 1 phase motors
Compatibility code	LC1D

Excluding VAT, FCA Jabal Ali & are subject to change – check with your local distributor.

Pole contact composition	3 NO			
Protective cover	With			
[lth] conventional free air thermal current	25 A (at 60 °C) for power circuit 10 A (at 60 °C) for signalling 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			
[lcw] rated short-time withstand current	105 A 40 °C - 10 s for power circuit 210 A 40 °C - 1 s for power circuit 30 A 40 °C - 10 min for power circuit 61 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 25 A gG at <= 690 V coordination type 1 for power circuit 20 A gG at <= 690 V coordination type 2 for power circuit			
Average impedance	2.5 mOhm - Ith 25 A 50 Hz for power circuit			
Power dissipation per pole	1.56 W AC-1 0.2 W AC-3 0.2 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 conform <mark>ing</mark> 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	0.6 Mcycles 25 A AC-1 at Ue <= 440 V 2 Mcycles 9 A AC-3 at Ue <= 440 V 2 Mcycles 9 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	63 ±15 % ms closing 20 ±20 % ms opening			
Time constant	28 ms			
Maximum operating rate	3600 cyc/h at 60 °C			

Connections - terminals	Power circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible without		
	cable end  Power circuit: screw clamp terminals 2 14 mm² - cable stiffness: flexible without		
	cable end Power circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible with cable		
	end Power circuit: screw clamp terminals 2 12.5 mm² - cable stiffness: flexible with		
	cable end		
	Power circuit: screw clamp terminals 1 14 mm <sup>2</sup> - cable stiffness: solid without cable end		
	Power circuit: screw clamp terminals 2 14 mm <sup>2</sup> - cable stiffness: solid without cable end		
	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		
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		
	Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2 Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2		
Auxiliary contact composition	1 NO + 1 NC		
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	25400 Hz		
Minimum switching voltage	17 V for sign <mark>allin</mark> g circu <mark>it</mark>		
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	Pl <mark>ate</mark> 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 60947-4-1		
	IEC 60335-1:Clause 30.2 IEC 60335-2-40:Annex JJ		
	UL 60335-2-40:Annex JJ CSA C22.2 No 60947-4-1		
Product certifications	UL		
<del>-</del>	ccc		
	CSA		
	Marine UKCA		
	EAC		
IP degree of protection	CB Scheme		
Protective treatment	IP20 front face conforming to IEC 60529  TH conforming to IEC 60068-2-30		
Climatic withstand	•		
Omnauc widistand	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 open (10 Gn for 11 ms) Shocks contactor closed (15 Gn for 11 ms)	
Height	77 mm	
Width	45 mm	
Depth	95 mm	
Product weight	0.48 kg	

# **Packing Units**

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.000 cm
Package 1 Width	9.200 cm
Package 1 Length	11.100 cm
Package 1 Weight	523.000 g
Unit Type of Package 2	S02
Number of Units in Package 2	15
Package 2 Height	15.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	8.160 kg
Unit Type of Package 3	P06
Number of Units in Package 3	240
Package 3 Height	75.000 cm
Package 3 Width	60.000 cm
Package 3 Length	80.000 cm
Package 3 Weight	137.280 kg

## **Contractual warranty**

Warranty 18 months



Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing "Use Better, Use Longer, Use Again" campaign to extend product lifetimes and recyclability.

#### Environmental Data explained >

How we assess product sustainability >

☑ Environmental footprint	
Carbon footprint (kg.eq.CO2 per CR, Total Life cycle)	37
Environmental Disclosure	Product Environmental Profile

#### **Use Better**

Materials and Substances			
Packaging made with recycled cardboard	Yes		
Packaging without single use plastic	Yes		
SCIP Number	50ae7612-fd2e-41e4-a369-50d0dea6e592		
China RoHS Regulation	China RoHS declaration		
PVC free	Yes		

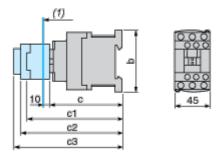
#### **Use Again**

○ Repack and remanufacture	
Circularity Profile	End of Life Information
Take-back	No

### LC1D09BD

### **Dimensions Drawings**

### **Dimensions**

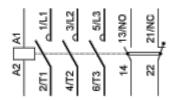


#### (1) Minimum electrical clearance

LC1		D09D18	D093D123	D099D129
b		77	99	80
	without cover or add-on blocks	93	93	93
С	with cover, without add-on blocks	95	95	95
с1	with LAD N or C (2 or 4 contacts)	126	126	126
c2	with LA6 DK10	138	138	138
c3	with LAD T, R, S	146	146	146
C3	with LAD T, R, S and sealing cover	150	150	150

Connections and Schema

Wiring





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