# Product data sheet Characteristics

# LC1D09BD

# TeSys D IEC contactor, 9 A, 3 P, 5 HP at 480 VAC, nonreversing, 24 VDC coil

Product availability: Stock - Normally stocked in distribution facility



Price\*: 119.00 USD



#### Main

Range	TeSys	
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Product name	TeSys D	
Product or component type	Contactor	
Device short name	LC1D	
Contactor application	Motor control Resistive load	
Utilisation category	AC-4 AC-1 AC-3	
Poles description	3P	
Power pole contact composition	3 NO	
[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 140 °F (60 °C)) <= 440 V AC AC-1 power circuit	
Motor power kW	2.2 kW 220230 V AC 50/60 Hz AC-3) 4 kW 380400 V AC 50/60 Hz AC-3) 4 kW 415440 V AC 50/60 Hz AC-3) 5.5 kW 500 V AC 50/60 Hz AC-3) 5.5 kW 660690 V AC 50/60 Hz AC-3) 2.2 kW 400 V AC 50/60 Hz AC-4)	
Motor power HP (UL / CSA)	1 hp 230/240 V AC 50/60 Hz 1 phase 2 hp 200/208 V AC 50/60 Hz 3 phase 2 hp 230/240 V AC 50/60 Hz 3 phase 5 hp 460/480 V AC 50/60 Hz 3 phase 7.5 hp 575/600 V AC 50/60 Hz 3 phase 0.33 hp 115 V AC 50/60 Hz 1 phase	
Control circuit type	DC standard	
[Uc] control circuit voltage	24 V DC	
Auxiliary contact composition	1 NO + 1 NC	
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<sup>\*</sup> Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947
Overvoltage category	
[Ith] conventional free air thermal current	25 A 140 °F (60 °C) power circuit 10 A (at 60 °C) for signalling circuit
Irms rated making capacity	250 A 440 V power circuit 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 440 V power circuit IEC 60947
[lcw] rated short-time withstand current	105 A 104 °F (40 °C) - 10 s power circuit 210 A 104 °F (40 °C) - 1 s power circuit 30 A 104 °F (40 °C) - 10 min power circuit 61 A 104 °F (40 °C) - 1 min 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 <= 690 V type 1 power circuit 20 A gG <= 690 V type 2 power circuit
Average impedance	2.5 mOhm - Ith 25 A 50 Hz power circuit
[Ui] rated insulation voltage	Power circuit: 690 V conforming to IEC 60947-4-1 Power circuit 600 V CSA Power circuit 600 V UL Signalling circuit: 690 V conforming to IEC 60947-1 Signalling circuit 600 V CSA Signalling circuit 600 V UL
Electrical durability	0.6 Mcycles 25 A AC-1 <= 440 V 2 Mcycles 9 A AC-3 <= 440 V
Power dissipation per pole	1.56 W AC-1 0.2 W AC-3
Front cover	With
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	LROS (Lloyds register of shipping) CSA UL GOST DNV CCC GL BV RINA
Connections - terminals	Power circuit screw clamp terminals 1 0.000.01 in² (14 mm²)flexible without cable end Power circuit screw clamp terminals 2 0.000.01 in² (14 mm²)flexible without cable end Power circuit screw clamp terminals 1 0.000.01 in² (14 mm²)flexible with cable end Power circuit screw clamp terminals 2 0.000.00 in² (12.5 mm²)flexible with cable end Power circuit screw clamp terminals 1 0.000.01 in² (14 mm²)solid without cable end Power circuit screw clamp terminals 2 0.000.01 in² (14 mm²)solid without cable end Control circuit screw clamp terminals 1 0.000.01 in² (14 mm²)flexible without cable end Control circuit screw clamp terminals 2 0.000.01 in² (14 mm²)flexible without cable end Control circuit: screw clamp terminals 1 cable(s) 14 mm²flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 12.5 mm²flexible with cable end Control circuit screw clamp terminals 1 0.000.01 in² (14 mm²)solid without cable end Control circuit screw clamp terminals 2 0.000.01 in² (14 mm²)solid without cable end Control circuit screw clamp terminals 2 0.000.01 in² (14 mm²)solid without cable end
Tightening torque	Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals 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	53.5572.45 ms closing 1624 ms opening

Mechanical durability	30 Mcycles
Maximum operating rate	3600 cyc/h 60 °C

## Complementary

0.71.25 Uc (-4060 °C):operational DC 11.25 Uc (1-40158 °F (6070 °C) operational DC 11.25 Uc 140158 °F (6070 °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  25400 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 1.5 ms on energisation between NC and NO contact  Unsulation resistance  > 10 MOhm for signalling circuit  M4  Compatibility code  LC1D  Motor power range  1.12 kW 200240 V 3 phase 46 kW 380440 V 3 phase 46 kW 380440 V 3 phase 46 kW 480500 V 3 phase	Coil technology	Built-in bidirectional peak limiting diode suppressor	
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  25400 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  Contact compatibility  M4  Compatibility code  LC1D  Motor power range  1.12 kW 200240 V 3 phase 2.23 kW 380440 V 3 phase 46 kW 380440 V 3 phase 46 kW 480500 V 3 phase Motor starter type  Direct on-line contactor	Control circuit voltage limits	0.71.25 Uc (-4060 °C):operational DC	
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  25400 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  Contact compatibility  M4  Compatibility code  LC1D  Motor power range  1.12 kW 200240 V 3 phase 2.23 kW 380440 V 3 phase 46 kW 380440 V 3 phase 46 kW 480500 V 3 phase Motor starter type  Direct on-line contactor	Time constant	28 ms	
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Minimum switching voltage  17 V for signalling circuit  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  Contact compatibility  M4  Compatibility code  LC1D  Motor power range  1.12 kW 200240 V 3 phase 2.23 kW 380440 V 3 phase 46 kW 380440 V 3 phase 46 kW 480500 V 3 phase Motor starter type  Direct on-line contactor	Signalling circuit frequency	25400 Hz	
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  Contact compatibility  M4  Compatibility code  LC1D  Motor power range  1.12 kW 200240 V 3 phase 2.23 kW 380440 V 3 phase 46 kW 380440 V 3 phase 46 kW 480500 V 3 phase  Motor starter type  Direct on-line contactor	Minimum switching current	5 mA for signalling circuit	
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Compatibility code         LC1D           Motor power range         1.12 kW 200240 V 3 phase           2.23 kW 380440 V 3 phase         46 kW 380440 V 3 phase           46 kW 480500 V 3 phase         46 kW 480500 V 3 phase           Motor starter type         Direct on-line contactor	Insulation resistance	> 10 MOhm for signalling circuit	
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2.23 kW 380440 V 3 phase 46 kW 380440 V 3 phase 46 kW 480500 V 3 phase  Motor starter type  Direct on-line contactor	Compatibility code	LC1D	
When the second	Motor power range	2.23 kW 380440 V 3 phase 46 kW 380440 V 3 phase	
Contactor coil voltage 24 V DC standard	Motor starter type	Direct on-line contactor	
	Contactor coil voltage	24 V DC standard	

#### **Environment**

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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	-4060 °C 6070 °C with derating
Ambient air temperature for storage	-76176 °F (-6080 °C)
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	3.03 in (77 mm)
Width	1.77 in (45 mm)
Depth	3.74 in (95 mm)
Net Weight	1.06 lb(US) (0.48 kg)
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# Ordering and shipping details

Category	22355 - CTR,TESYS D,OPEN,9-38A DC
Discount Schedule	l12
GTIN	00785901213369
Nbr. of units in pkg.	1
Package weight(Lbs)	1.17 lb(US) (0.53 kg)
Returnability	Yes
Country of origin	ID

## Packing Units

Unit Type of Package 1	PCE	
Package 1 Height	1.97 in (5 cm)	
Package 1 width	3.62 in (9.2 cm)	
Package 1 Length	4.41 in (11.2 cm)	

## Offer Sustainability

Sustainable offer status	Green Premium product	
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 www.P65Warnings.ca.gov	
REACh Regulation	REACh Declaration	
EU RoHS Directive	Compliant EU RoHS Declaration	
Mercury free	Yes	
RoHS exemption information	Yes	
China RoHS Regulation	China RoHS declaration Product out of China RoHS scope. Substance declaration for your information.	
Environmental Disclosure	Product Environmental Profile	
Circularity Profile	End of Life Information	
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.	
PVC free	Yes	

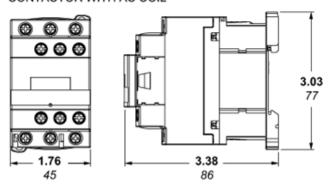
#### Contractual warranty

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Warranty	18 months

# LC1D09BD

## **Approximate Dimensions**

#### CONTACTOR WITH AC COIL



#### CONTACTOR WITH DC COIL

