Product data sheet
Characteristics

LC1D50BD
CONTACTOR 600VAC 50AMP IEC +OPTIONS

Main

Range of product	TeSys D
Range	TeSys
Product or component type	Contactor
Device short name	LC1D
Contactor application	Resistive load Motor control
Utilisation category	AC-4 AC-2 AC-1 AC-3
Control circuit type	DC standard
Poles description	3P
Pole contact composition	3 NO
[Ie] rated operational current	50 A (<= 140 °F (60 °C)) at <= 440 V AC AC-3 power circuit 80 A (<= 140 °F (60 °C)) at <= 440 V AC AC-1 power circuit
Motor power kW	22 kW at 380...400 V AC 50/60 Hz AC-3 25 kW at 415 V AC 50/60 Hz AC-3 30 kW at 440 V AC 50/60 Hz AC-3 30 kW at 500 V AC 50/60 Hz AC-3 33 kW at 660...690 V AC 50/60 Hz AC-3 15 kW at 220...230 V AC 50/60 Hz AC-3 11 kW at 400 V AC 50/60 Hz AC-4 30 kW at 1000 V AC 50/60 Hz AC-3
Motor power hp	15 hp at 200/208 V AC 60 Hz 3P motors conforming to CSA 15 hp at 200/208 V AC 60 Hz 3P motors conforming to UL 15 hp at 230/240 V AC 60 Hz 3P motors conforming to CSA 15 hp at 230/240 V AC 60 Hz 3P motors conforming to UL 3 hp at 115 V AC 60 Hz 1P motors conforming to CSA 3 hp at 115 V AC 60 Hz 1P motors conforming to UL 40 hp at 460/480 V AC 60 Hz 3P motors conforming to CSA 40 hp at 460/480 V AC 60 Hz 3P motors conforming to UL 40 hp at 575/600 V AC 60 Hz 3P motors conforming to CSA 40 hp at 575/600 V AC 60 Hz 3P motors conforming to UL 7.5 hp at 230/240 V AC 60 Hz 1P motors conforming to CSA 7.5 hp at 230/240 V AC 60 Hz 1P motors conforming to UL
[Uc] control circuit voltage	24 V DC

Connections - terminals	Control circuit: screw clamp terminal 1 cable 0...0.01 in² (1...4 mm²) - cable stiffness: solid - without cable end Control circuit: screw clamp terminal 2 cable 0...0.01 in² (1...4 mm²) - cable stiffness: solid - without cable end Power circuit: screw clamp terminal 1 cable 0...0.05 in² (1...35 mm²) - cable stiffness: solid - without cable end Power circuit: screw clamp terminal 2 cable 0...0.04 in² (1...25 mm²) - cable stiffness: solid - without cable end Power circuit: screw clamp terminal 1 cable 0...0.05 in² (1...35 mm²) - cable stiffness: flexible - without cable end Control circuit: screw clamp terminal 1 cable 0...0.01 in² (1...4 mm²) - cable stiffness: flexible - with cable end Control circuit: screw clamp terminal 2 cable 0...0 in² (1...2.5 mm²) - cable stiffness: flexible - without cable end Control circuit: screw clamp terminal 2 cable 0...0.01 in² (1...4 mm²) - cable stiffness: flexible - with cable end Power circuit: screw clamp terminal 2 cable 0...0.04 in² (1...25 mm²) - cable stiffness: flexible - with cable end Power circuit: screw clamp terminal 2 cable 0...0.05 in² (1...35 mm²) - cable stiffness: flexible - without cable end Power circuit: screw clamp terminal 2 cable 0...0.05 in² (1...35 mm²) - cable stiffness: solid - with cable end Power circuit : screw terminals

Complementary

Coil technology	Built-in bidirectional peak limiting diode suppressor
Protective cover	With
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
Auxiliary contact composition	1 NO + 1 NC
Control circuit voltage limits	0.1...0.3 Uc at 140 °F (60 °C) drop-out 0.75...1.25 Uc at 140 °F (60 °C) operational
Time constant	34 ms
[Ui] rated insulation voltage	1000 V power circuit conforming to IEC 60947-4-1 600 V control circuit certifications CSA 600 V control circuit certifications UL 600 V power circuit certifications CSA 600 V power circuit certifications UL 690 V control circuit conforming to IEC 60947-1 690 V power circuit conforming to IEC 60947-1
[Uimp] rated impulse withstand voltage	8 kV IEC 60947
Overvoltage category	III
Mounting support	Plate Rail
Flame retardance	V1 conforming to UL 94
Tightening torque	Power circuit: 44.25 lbf.in (5 N.m) - on screw clamp terminal - with screwdriver flat Ø 6 mm Control circuit: 10.62 lbf.in (1.2 N.m) - on screw clamp terminal - with screwdriver Philips No 2 Control circuit: 10.62 lbf.in (1.2 N.m) - on screw clamp terminal - with screwdriver flat Ø 6 mm Power circuit: 44.25 lbf.in (5 N.m) - on screw clamp terminal - with screwdriver flat Ø 8 mm
System Voltage	<= 690 V AC 25...400 Hz power circuit
[Ith] conventional free air thermal current	10 A at <= 140 °F (60 °C) control circuit 80 A at <= 140 °F (60 °C) power circuit
Irms rated making capacity	250 A DC control circuit conforming to IEC 60947-5-1 900 A at 440 V power circuit conforming to IEC 60947
Rated breaking capacity	900 A at 440 V power circuit conforming to IEC 60947
Associated fuse rating	10 A gG control circuit conforming to IEC 60947-5-1 100 A gG at <= 690 V coordination type 1 power circuit 100 A gG at <= 690 V coordination type 2 power circuit
Power dissipation per pole	3.7 W AC-3 9.6 W AC-1
Inrush power in W	19 W at 68 °F (20 °C)
Hold-in power consumption in W	7.4 W at 68 °F (20 °C)
Operating time	20 ms opening 50 ms closing
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	10000000 cycles
Operating rate	3600 cyc/h at <= 140 °F (60 °C)
Minimum switching current	5 mA control circuit
Minimum switching voltage	17 V control circuit
Non-overlap time	1.5 ms on de-energisation between NC and NO contacts 1.5 ms on energisation between NC and NO contacts
Insulation resistance	> 10 MOhm control circuit
Rated operational power in W	14 W at 24 V DC-13 - electrical durability: 10000000 cycles - for control circuit 48 W at 24 V DC-13 - electrical durability: 3000000 cycles - for control circuit 96 W at 24 V DC-13 - electrical durability: 1000000 cycles - for control circuit
Height	5 in (127 mm)
Width	3.35 in (85 mm)
Depth	6.93 in (176 mm)
Product weight	4.82 lb(US) (2.185 kg)

Environment

Standards	EN 60947-4-1 UL 508 IEC 60947-5-1 IEC 60947-4-1 EN 60947-5-1 CSA C22.2 No 14
Product certifications	CCC CSA GOST UL GL RINA LROS (Lloyds register of shipping) DNV BV
IP degree of protection	IP2x conforming to IEC 60529 IP2x conforming to VDE 0106
Ambient air temperature for operation	23...140 °F (-5...60 °C)
Ambient air temperature for storage	-76...176 °F (-60...80 °C)
Permissible ambient air temperature around the device	-40...158 °F (-40...70 °C) at Uc
Operating altitude	9842.52 ft (3000 m) without derating in temperature
Fire resistance	1562 °F (850 °C) conforming to IEC 60695-2-1
Shock resistance	10 gn contactor opened 15 gn contactor closed
Vibration resistance	2 gn 5...300 Hz contactor opened 4 gn 5...300 Hz contactor closed

Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0706 - Schneider Electric declaration of conformity Schneider Electric declaration of conformity
REACh	Reference not containing SVHC above the threshold Reference not containing SVHC above the threshold
Product environmental profile	Available Product Environmental Profile
Product end of life instructions	Available End of Life Information

Contractual warranty

Warranty period	18 months

LC1D50BD is replaced by:

Contactors LC1D50ABD

TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 50 A - 24 V DC standard coil

Qty 1

Reason for Substitution: End of life | Substitution date: 01 January 2017