Product data sheet
Characteristics

LC1D25B7
TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 25 A - 24 V AC coil



Main

Range of product	TeSys D
Range	TeSys
Product name	TeSys D
Product or component type	Contactor
Device short name	LC1D
Contactor application	Resistive load Motor control
Utilisation category	AC-1 AC-4 AC-3
Poles description	3P
Pole contact composition	3 NO
[Ue] rated operational voltage	<= 300 V DC for power circuit <= 690 V AC 25...400 Hz for power circuit
[Ie] rated operational current	25 A (<= 60 °C) at <= 440 V AC AC-3 for power circuit 40 A (<= 60 °C) at <= 440 V AC AC-1 for power circuit
Motor power kW	11 kW at 380...400 V AC 50/60 Hz AC-3 15 kW at 500 V AC 50/60 Hz AC-3 15 kW at 660...690 V AC 50/60 Hz AC-3 5.5 kW at 220...230 V AC 50/60 Hz AC-3 11 kW at 415...440 V AC 50/60 Hz AC-3 5.5 kW at 400 V AC 50/60 Hz AC-4
Motor power hp	2 hp at 115 V AC 50/60 Hz for 1 phase motors 7.5 hp at 200/208 V AC 50/60 Hz for 3 phases motors 3 hp at 230/240 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
Control circuit type	AC 50/60 Hz
[Uc] control circuit voltage	24 V AC 50/60 Hz
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Overvoltage category	III
[Ith] conventional free air thermal current	40 A at <= 60 °C for power circuit 10 A at <= 60 °C for signalling circuit
Irms rated making capacity	450 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	450 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	120 A <= 40 °C 1 min power circuit 240 A <= 40 °C 10 s power circuit 380 A <= 40 °C 1 s power circuit 50 A <= 40 °C 10 min power circuit 100 A 1 s signalling circuit 120 A 500 ms signalling circuit 140 A 100 ms signalling circuit
Associated fuse rating	40 A gG at <= 690 V coordination type 2 for power circuit 63 A gG at <= 690 V coordination type 1 for power circuit 10 A gG for signalling circuit conforming to IEC 60947-5-1
Average impedance	2 mOhm at 50 Hz - Ith 40 A for power circuit
[Ui] rated insulation voltage	600 V for power circuit certifications CSA 600 V for power circuit certifications UL 690 V for power circuit conforming to IEC 60947-4-1 690 V for signalling circuit conforming to IEC 60947-1 600 V for signalling circuit certifications CSA 600 V for signalling circuit certifications UL
Electrical durability	1.65 Mcycles 25 A AC-3 at Ue <= 440 V 1.4 Mcycles 40 A AC-1 at Ue <= 440 V
Power dissipation per pole	3.2 W AC-1 1.25 W AC-3
Protective cover	With
Mounting support	Rail Plate
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	RINA CSA GOST GL CCC BV UL DNV LROS (Lloyds register of shipping)
Connections - terminals	Control circuit : screw clamp terminals 2 cable(s) 1...2.5 mm² - cable stiffness: flexible - with cable end Power circuit : screw clamp terminals 1 cable(s) 1.5...10 mm² - cable stiffness: solid - without cable end Control circuit : screw clamp terminals 1 cable(s) 1...4 mm² - cable stiffness: flexible - without cable end Control circuit : screw clamp terminals 2 cable(s) 1...4 mm² - cable stiffness: flexible - without cable end Control circuit : screw clamp terminals 1 cable(s) 1...4 mm² - cable stiffness: flexible - with cable end Control circuit : screw clamp terminals 1 cable(s) 1...4 mm² - cable stiffness: solid - without cable end Control circuit : screw clamp terminals 2 cable(s) 1...4 mm² - cable stiffness: solid - without cable end Power circuit : screw clamp terminals 1 cable(s) 2.5...10 mm² - cable stiffness: flexible - without cable end Power circuit : screw clamp terminals 2 cable(s) 2.5...10 mm² - cable stiffness: flexible - without cable end Power circuit : screw clamp terminals 1 cable(s) 1...10 mm² - cable stiffness: flexible - with cable end Power circuit : screw clamp terminals 2 cable(s) 1.5...6 mm² - cable stiffness: flexible - with cable end Power circuit : screw clamp terminals 2 cable(s) 2.5...10 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

Operating time	4...19 ms opening 12...22 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	15 Mcycles
Operating rate	3600 cyc/h at <= 60 °C

Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.3...0.6 Uc drop-out at 60 °C, AC 50/60 Hz 0.8...1.1 Uc operational at 60 °C, AC 50 Hz 0.85...1.1 Uc operational at 60 °C, AC 60 Hz
Inrush power in VA	70 VA at 20 °C (cos ϕ 0.75) 60 Hz 70 VA at 20 °C (cos ϕ 0.75) 50 Hz
Hold-in power consumption in VA	7.5 VA at 20 °C (cos ϕ 0.3) 60 Hz 7 VA at 20 °C (cos ϕ 0.3) 50 Hz
Heat dissipation	2...3 W at 50/60 Hz
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 energisation between NC and NO contact 1.5 ms on de-energisation between NC and NO contact
Insulation resistance	> 10 MOhm for signalling circuit
Power range	7...11 kW 380...440 V 3 phases 7...11 kW 480...500 V 3 phases 4...6 kW 200...240 V 3 phases
Motor starter type	Direct on-line contactor
Contactor coil voltage	24 V AC standard

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	-5...60 °C
Ambient air temperature for storage	-60...80 °C
Permissible ambient air temperature around the device	-40...70 °C at Uc
Operating altitude	3000 m without derating in temperature
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 closed 15 Gn for 11 ms Shocks contactor open 8 Gn for 11 ms
Height	85 mm
Width	45 mm
Depth	92 mm
Product weight	0.37 kg

Offer Sustainability

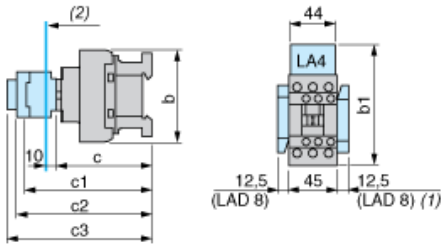
Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0627 - Schneider Electric declaration of conformity Schneider Electric declaration of conformity
REACh	Reference not containing SVHC above the threshold

	Reference not containing SVHC above the threshold
Product environmental profile	Available Product environmental
Product end of life instructions	Available End of life manual

Contractual warranty

Warranty period	18 months

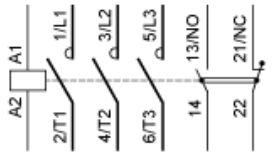
Dimensions



(1) Including LAD 4BB
(2) Minimum electrical clearance

LC1		D25…D38 (3-pole)
b	without add-on blocks	85
b1	with LAD 4BB	98
with LA4 D•2	114(1)	
with LA4 DF, DT	123(1)	
with LA4 DW, DL	130(1)	
c	without cover or add-on blocks	90
with cover, without add-on blocks	92	
c1	with LAD N or C (2 or 4 contacts)	123
c2	with LA6 DK10, LAD 6K10	135
c3	with LAD T, R, S	143
with LAD T, R, S and sealing cover	147	
(1)	Including LAD 4BB.	

Wiring



Our Proposal - Type 1 : Circuit Breaker + Contactor for Motor Power from 9 to 11 kW and 415 VAC

Motor power (kW)	ICU (kA)	Breaker	Contactor (*)
9	15	 GV2ME21	 LC1D25B7
11	15	 GV2ME22	 LC1D25B7

Non contractual pictures.

Type 1 coordination requires that in a short-circuit condition, the contactor or starter must not present any danger to personnel or installations and must not be able to resume operation without repair or the replacement of parts.