



Main

Range	TeSys
Product name	TeSys D
Product or component type	Contacteur
Device short name	LC1D
Contacteur application	Motor control Resistive load
Utilisation category	AC-1 AC-3 AC-4
Poles description	3P
Power 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	32 A (≤ 60 °C) at ≤ 440 V AC AC-3 for power circuit 50 A (≤ 60 °C) at ≤ 440 V AC AC-1 for power circuit
Motor power kW	15 kW at 380...400 V AC 50/60 Hz AC-3 7.5 kW at 220...230 V AC 50/60 Hz AC-3 18.5 kW at 500 V AC 50/60 Hz AC-3 18.5 kW at 660...690 V AC 50/60 Hz AC-3 15 kW at 415...440 V AC 50/60 Hz AC-3 7.5 kW at 400 V AC 50/60 Hz AC-4
Motor power HP (UL / CSA)	2 hp at 115 V AC 50/60 Hz for 1 phase motors 5 hp at 230/240 V AC 50/60 Hz for 1 phase motors 7.5 hp at 200/208 V AC 50/60 Hz for 3 phases motors 10 hp at 230/240 V AC 50/60 Hz for 3 phases motors 20 hp at 460/480 V AC 50/60 Hz for 3 phases motors 30 hp at 575/600 V AC 50/60 Hz for 3 phases motors
Control circuit type	AC 50/60 Hz
[Uc] control circuit voltage	220 V AC 50/60 Hz
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947
Overtoltage category	III

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

[I _{th}] conventional free air thermal current	50 A at ≤ 60 °C for power circuit 10 A at ≤ 60 °C for signalling circuit
I _{rms} rated making capacity	550 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	550 A at 440 V for power circuit conforming to IEC 60947
[I _{cw}] rated short-time withstand current	138 A ≤ 40 °C 1 min power circuit 260 A ≤ 40 °C 10 s power circuit 430 A ≤ 40 °C 1 s power circuit 60 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	63 A gG at ≤ 690 V coordination type 1 for power circuit 63 A gG at ≤ 690 V coordination type 2 for power circuit 10 A gG for signalling circuit conforming to IEC 60947-5-1
Average impedance	2 mOhm at 50 Hz - I _{th} 50 A for power circuit
[U _i] 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 32 A AC-3 at U _e ≤ 440 V 1.4 Mcycles 50 A AC-1 at U _e ≤ 440 V
Power dissipation per pole	2 W AC-3 5 W AC-1
Safety 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	BV CCC CSA DNV GL GOST LROS (Lloyds register of shipping) RINA UL
Connections - terminals	Control circuit : screw clamp terminals 2 cable(s) 1...2.5 mm ² - cable stiffness: flexible - with cable end Power circuit : screw clamp terminals 1 cable(s) 1.5...10 mm ² - cable stiffness: solid - without cable end Control circuit : screw clamp terminals 1 cable(s) 1...4 mm ² - cable stiffness: flexible - without cable end Control circuit : screw clamp terminals 2 cable(s) 1...4 mm ² - cable stiffness: flexible - without cable end Control circuit : screw clamp terminals 1 cable(s) 1...4 mm ² - cable stiffness: flexible - with cable end Control circuit : screw clamp terminals 1 cable(s) 1...4 mm ² - cable stiffness: solid - without cable end Control circuit : screw clamp terminals 2 cable(s) 1...4 mm ² - cable stiffness: solid - without cable end Power circuit : screw clamp terminals 1 cable(s) 2.5...10 mm ² - cable stiffness: flexible - without cable end Power circuit : screw clamp terminals 2 cable(s) 2.5...10 mm ² - cable stiffness: flexible - without cable end Power circuit : screw clamp terminals 1 cable(s) 1...10 mm ² - cable stiffness: flexible - with cable end Power circuit : screw clamp terminals 2 cable(s) 1.5...6 mm ² - cable stiffness: flexible - with cable end Power circuit : screw clamp terminals 2 cable(s) 2.5...10 mm ² - 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 $\leq 60\text{ }^{\circ}\text{C}$

Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.3...0.6 Uc drop-out at $60\text{ }^{\circ}\text{C}$, AC 50/60 Hz 0.8...1.1 Uc operational at $60\text{ }^{\circ}\text{C}$, AC 50 Hz 0.85...1.1 Uc operational at $60\text{ }^{\circ}\text{C}$, AC 60 Hz
Inrush power in VA	70 VA at $20\text{ }^{\circ}\text{C}$ (cos ϕ 0.75) 60 Hz 70 VA at $20\text{ }^{\circ}\text{C}$ (cos ϕ 0.75) 50 Hz
Hold-in power consumption in VA	7.5 VA at $20\text{ }^{\circ}\text{C}$ (cos ϕ 0.3) 60 Hz 7 VA at $20\text{ }^{\circ}\text{C}$ (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

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... $60\text{ }^{\circ}\text{C}$
Ambient air temperature for storage	-60... $80\text{ }^{\circ}\text{C}$
Permissible ambient air temperature around the device	-40... $70\text{ }^{\circ}\text{C}$ at Uc
Operating altitude	3000 m without derating in temperature
Fire resistance	$850\text{ }^{\circ}\text{C}$ 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	0.375 kg

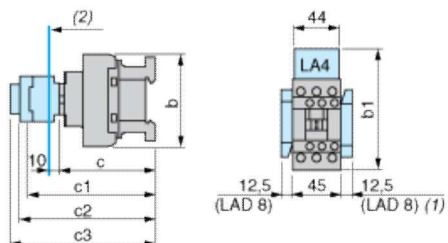
Offer Sustainability

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 Profile
Product end of life instructions	Available End of Life Information

Contractual warranty

Warranty period	18 months
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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

