



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	$\leq 300$ V DC for power circuit $\leq 690$ V AC 25...400 Hz for power circuit
[Ie] rated operational current	25 A ( $\leq 60$ °C) at $\leq 440$ V AC AC-3 for power circuit 40 A ( $\leq 60$ °C) at $\leq 440$ 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 (UL / CSA)	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	220 V AC 50/60 Hz
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947
Overtension 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 <sub>th</sub> ] conventional free air thermal current	40 A at ≤ 60 °C for power circuit 10 A at ≤ 60 °C for signalling circuit
I <sub>rms</sub> 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
[I <sub>cw</sub> ] 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 - I <sub>th</sub> 40 A for power circuit
[U <sub>i</sub> ] 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 U <sub>e</sub> ≤ 440 V 1.4 Mcycles 40 A AC-1 at U <sub>e</sub> ≤ 440 V
Power dissipation per pole	3.2 W AC-1 1.25 W AC-3
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 <sup>2</sup> - cable stiffness: flexible - with cable end Power circuit : screw clamp terminals 1 cable(s) 1.5...10 mm <sup>2</sup> - cable stiffness: solid - without cable end Control circuit : screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: flexible - without cable end Control circuit : screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: flexible - without cable end Control circuit : screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: flexible - with cable end Control circuit : screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: solid - without cable end Control circuit : screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: solid - without cable end Power circuit : screw clamp terminals 1 cable(s) 2.5...10 mm <sup>2</sup> - cable stiffness: flexible - without cable end Power circuit : screw clamp terminals 2 cable(s) 2.5...10 mm <sup>2</sup> - cable stiffness: flexible - without cable end Power circuit : screw clamp terminals 1 cable(s) 1...10 mm <sup>2</sup> - cable stiffness: flexible - with cable end Power circuit : screw clamp terminals 2 cable(s) 1.5...6 mm <sup>2</sup> - cable stiffness: flexible - with cable end Power circuit : screw clamp terminals 2 cable(s) 2.5...10 mm <sup>2</sup> - 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 $\phi$ 0.75) 60 Hz 70 VA at $20\text{ }^{\circ}\text{C}$ (cos $\phi$ 0.75) 50 Hz
Hold-in power consumption in VA	7.5 VA at $20\text{ }^{\circ}\text{C}$ (cos $\phi$ 0.3) 60 Hz 7 VA at $20\text{ }^{\circ}\text{C}$ (cos $\phi$ 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	0.37 kg

### Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0627 - Schneider Electric declaration of conformity <a href="#">Schneider Electric declaration of conformity</a>
REACH	Reference not containing SVHC above the threshold <a href="#">Reference not containing SVHC above the threshold</a>
Product environmental profile	Available <a href="#">Product Environmental Profile</a>
Product end of life instructions	Available <a href="#">End of Life Information</a>

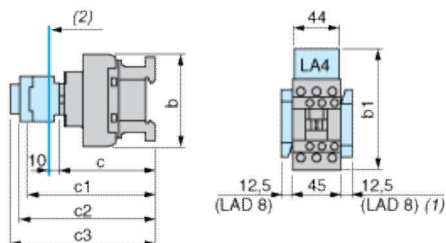
Contractual warranty

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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 <sup>(1)</sup>
	with LA4 DF, DT	123 <sup>(1)</sup>
	with LA4 DW, DL	130 <sup>(1)</sup>
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

