



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	80 A (≤ 60 °C) at ≤ 440 V AC AC-1 for power circuit 65 A (≤ 60 °C) at ≤ 440 V AC AC-3 for power circuit
Motor power kW	11 kW at 400 V AC 50/60 Hz AC-4 30 kW at 380...400 V AC 50/60 Hz AC-3 37 kW at 500 V AC 50/60 Hz AC-3 37 kW at 660...690 V AC 50/60 Hz AC-3 18.5 kW at 220...230 V AC 50/60 Hz AC-3
Motor power HP (UL / CSA)	40 hp at 460/480 V AC 50/60 Hz for 3 phases motors 5 hp at 115 V AC 50/60 Hz for 1 phase motors 10 hp at 230/240 V AC 50/60 Hz for 1 phase motors 20 hp at 200/208 V AC 50/60 Hz for 3 phases motors 20 hp at 230/240 V AC 50/60 Hz for 3 phases motors 50 hp at 575/600 V AC 50/60 Hz for 3 phases motors
Control circuit type	DC standard
Control circuit voltage	24 V DC
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	Conforming to IEC 60947
Overvoltage 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	80 A at ≤ 60 °C for power circuit 10 A at ≤ 60 °C for signalling circuit
I _{rms} rated making capacity	1000 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	1000 A at 440 V for power circuit conforming to IEC 60947
[I _{cw}] rated short-time withstand current	100 A 1 s signalling circuit 120 A 500 ms signalling circuit 140 A 100 ms signalling circuit 520 A ≤ 40 °C 10 s power circuit 900 A ≤ 40 °C 1 s power circuit 110 A ≤ 40 °C 10 min power circuit 260 A ≤ 40 °C 1 min power circuit
Associated fuse rating	125 A gG at ≤ 690 V coordination type 1 for power circuit 125 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	1.5 mΩ at 50 Hz - I _{th} 80 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	1.45 Mcycles 65 A AC-3 at U _e ≤ 440 V 1.4 Mcycles 80 A AC-1 at U _e ≤ 440 V
Power dissipation per pole	6.3 W AC-3 9.6 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	CCC CSA GOST UL
Connections - terminals	Control circuit : screw clamp terminals 2 cable(s) 1...2.5 mm ² - cable stiffness: flexible - with 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 connection 2 cable(s) 1...25 mm ² - cable stiffness: flexible - with cable end Power circuit : screw connection 2 cable(s) 1...25 mm ² - cable stiffness: solid - without cable end Power circuit : screw connection 2 cable(s) 1...25 mm ² - cable stiffness: flexible - without cable end Power circuit : screw connection 1 cable(s) 1...35 mm ² - cable stiffness: solid - without cable end Power circuit : screw connection 1 cable(s) 1...35 mm ² - cable stiffness: flexible - without cable end Power circuit : screw connection 1 cable(s) 1...35 mm ² - cable stiffness: flexible - with 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 : 8 N.m - on EverLink BTR screw connectors - cable 25...35 mm ² hexagonal 4 mm Power circuit : 5 N.m - on EverLink BTR screw connectors - cable 1...25 mm ² hexagonal 4 mm
Operating time	16...24 ms opening 42.5...57.5 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	10 Mcycles
Operating rate	3600 cyc/h at ≤ 60 °C

Complementary

Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.1...0.3 U _c drop-out at 60 °C, DC 0.75...1.25 U _c operational at 60 °C, DC
Time constant	34 ms
Inrush power in W	19 W at 20 °C
Hold-in power consumption in W	7.4 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	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 de-energisation (between NC and NO contact) 1.5 ms on 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 °C
Ambient air temperature for storage	-60...80 °C
Permissible ambient air temperature around the device	-40...70 °C at U _c
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 open 10 Gn for 11 ms Shocks contactor closed 15 Gn for 11 ms
Height	122 mm
Width	55 mm
Depth	120 mm
Product weight	0.935 kg

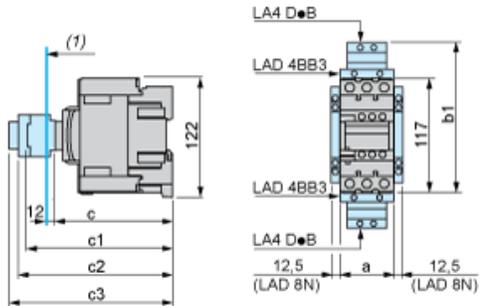
Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0501 - 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 instructio	Available End of life manual

Contractual warranty

Period	18 months
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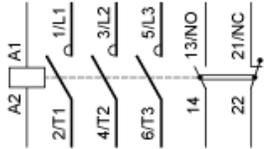
Dimensions



(1) Minimum electrical clearance

LC1		D40A...D65A
a		55
b1	with LAD 4BB3	136
	with LA4 DF, DT	157
c	without cover or add-on blocks	118
	with cover, without add-on blocks	120
c1	with LAD N (1 contact)	–
	with LAD N or C (2 or 4 contacts)	150
c2	with LA6 DK10	163
c3	with LAD T, R, S	171
	with LAD T, R, S and sealing cover	175

Wiring



Our Proposal - Type 1 : Circuit Breaker + Contactor for Motor Power 30 kW and 415 VAC

Motor power (kW)	ICU (kA)	Breaker	Contactor (*)
30	50	 GV3P65	 LC1D65ABD

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.