



### Main

Range	TeSys
Product name	TeSys D
Product or component type	Contactor
Device short name	LC1D
Contactor application	Motor control Resistive load
Utilisation category	AC-3 AC-4 AC-1
Poles description	3P
Pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit: <= 690 V AC 25...400 Hz Power circuit: <= 300 V DC
[Ie] rated operational current	9 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 25 A (at <60 °C) at <= 440 V AC AC-1 for power circuit
Motor power kW	2.2 KW at 220...230 V AC 50/60 Hz (AC-3) 4 KW at 380...400 V AC 50/60 Hz (AC-3) 4 KW at 415...440 V AC 50/60 Hz (AC-3) 5.5 KW at 500 V AC 50/60 Hz (AC-3) 5.5 KW at 660...690 V AC 50/60 Hz (AC-3) 2.2 KW at 400 V AC 50/60 Hz (AC-4)
Motor power hp	1 Hp at 230/240 V AC 50/60 Hz for 1 phase motors 2 Hp at 200/208 V AC 50/60 Hz for 3 phases motors 2 Hp at 230/240 V AC 50/60 Hz for 3 phases motors 5 Hp at 460/480 V AC 50/60 Hz for 3 phases motors 7.5 Hp at 575/600 V AC 50/60 Hz for 3 phases motors 0.33 Hp at 115 V AC 50/60 Hz for 1 phase motors
Control circuit type	AC at 50/60 Hz
[Uc] control circuit voltage	48 V AC 50/60 Hz
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	6 KV conforming to IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	25 A (at 60 °C) for power circuit 10 A (at 60 °C) for signalling circuit
Irms rated making capacity	250 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	250 A at 440 V for power circuit conforming to IEC 60947

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. 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. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

[I <sub>cw</sub> ] rated short-time withstand current	105 A 40 °C - 10 s for power circuit 210 A 40 °C - 1 s for power circuit 30 A 40 °C - 10 min for power circuit 61 A 40 °C - 1 min for power circuit 100 A - 1 s for signalling circuit 120 A - 500 ms for signalling circuit 140 A - 100 ms for signalling circuit
Associated fuse rating	10 A gG for signalling circuit conforming to IEC 60947-5-1 25 A gG at ≤ 690 V coordination type 1 for power circuit 20 A gG at ≤ 690 V coordination type 2 for power circuit
Average impedance	2.5 MOhm - lth 25 A 50 Hz for power circuit
[U <sub>i</sub> ] rated insulation voltage	Power circuit: 690 V conforming to IEC 60947-4-1 Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Signalling circuit: 690 V conforming to IEC 60947-1 Signalling circuit: 600 V CSA certified Signalling circuit: 600 V UL certified
Electrical durability	0.6 Mcycles 25 A AC-1 at U <sub>e</sub> ≤ 440 V 2 Mcycles 9 A AC-3 at U <sub>e</sub> ≤ 440 V
Power dissipation per pole	1.56 W AC-1 0.2 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	GOST GL LROS (Lloyds register of shipping) DNV UL RINA CCC BV CSA
Connections - terminals	Power circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> flexible without cable end Power circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> flexible without cable end Power circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> flexible with cable end Power circuit: screw clamp terminals 2 cable(s) 1...2.5 mm <sup>2</sup> flexible with cable end Power circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> solid without cable end Power circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> solid without cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> flexible without cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm <sup>2</sup> flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> solid without cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> solid without cable end
Tightening torque	Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2 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
Operating time	12...22 ms closing 4...19 ms opening
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
Maximum operating rate	3600 Cyc/H 60 °C

## Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.3...0.6 U <sub>c</sub> (-40...70 °C):drop-out AC 50/60 Hz 0.8...1.1 U <sub>c</sub> (-40...60 °C):operational AC 50 Hz 0.85...1.1 U <sub>c</sub> (-40...60 °C):operational AC 60 Hz 1...1.1 U <sub>c</sub> (60...70 °C):operational AC 50/60 Hz
Inrush power in VA	70 VA 60 Hz cos phi 0.75 (at 20 °C) 70 VA 50 Hz cos phi 0.75 (at 20 °C)
Hold-in power consumption in VA	7.5 VA 60 Hz cos phi 0.3 (at 20 °C) 7 VA 50 Hz cos phi 0.3 (at 20 °C)
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 de-energisation between NC and NO contact 1.5 Ms on energisation between NC and NO contact
Insulation resistance	> 10 MOhm for signalling circuit
Contact compatibility	M2
Compatibility code	LC1D
Power range	1.1...2 KW at 200...240 V 3 phases 2.2...3 KW at 380...440 V 3 phases 4...6 KW at 380...440 V 3 phases 4...6 KW at 480...500 V 3 phases
Motor starter type	Direct on-line contactor
Contactor coil voltage	48 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	-40...60 °C 60...70 °C with derating
Ambient air temperature for storage	-60...80 °C
Operating altitude	0...3000 m
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	77 Mm
Width	45 Mm
Depth	86 Mm
Net weight	0.32 Kg

## Packing Units

Package 1 Weight	0.357 Kg
Package 1 Height	0.500 Dm
Package 1 width	0.920 Dm
Package 1 Length	1.120 Dm

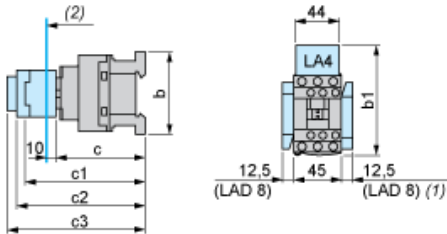
## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
REACH free of SVHC	Yes
EU RoHS Directive	Compliant <a href="#">EU RoHS Declaration</a>
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS Declaration</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End Of Life Information</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
PVC free	Yes

## Contractual warranty

Warranty	18 months
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Dimensions



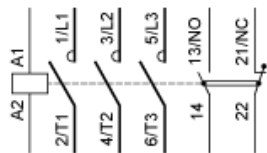
- (1) Including LAD 4BB
- (2) Minimum electrical clearance

LC1		D09...D18	D093...D123	D099...D129
b	without add-on blocks	77	99	80
b1	with LAD 4BB	94	107	95.5
with LA4 D10	140 <sup>(1)</sup>	123 <sup>(1)</sup>	111.5 <sup>(1)</sup>	
with LA4 D11	149 <sup>(1)</sup>	132 <sup>(1)</sup>	120.5 <sup>(1)</sup>	
with LA4 D12	158 <sup>(1)</sup>	139 <sup>(1)</sup>	127.5 <sup>(1)</sup>	
c	without cover or add-on blocks	84	84	84
c	with cover, without add-on blocks	86	86	
c1	with LAD N or C (2 or 4 contacts)	117	117	117
c2	with LA6 DK10, LAD 6K10	129	129	129
c3	with LAD T, R, S	137	137	137
with LAD T, R, S and sealing cover	141	141		
(1)	Including LAD 4BB.			

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Wiring

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Product Life Status :	Commercialised
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