



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-3 AC-1
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	50 A (≤ 60 °C) at ≤ 440 V AC AC-3 for power circuit 80 A (≤ 60 °C) at ≤ 440 V AC AC-1 for power circuit
Motor power kW	22 kW at 380...400 V AC 50/60 Hz 33 kW at 660...690 V AC 50/60 Hz 25 kW at 415 V AC 50/60 Hz 30 kW at 440 V AC 50/60 Hz 30 kW at 500 V AC 50/60 Hz 15 kW at 220...230 V AC 50/60 Hz
Motor power hp	7.5 hp at 230/240 V AC 50/60 Hz for 1 phase motors 15 hp at 200/208 V AC 50/60 Hz for 3 phases motors 40 hp at 460/480 V AC 50/60 Hz for 3 phases motors 3 hp at 115 V AC 50/60 Hz for 1 phase motors 15 hp at 230/240 V AC 50/60 Hz for 3 phases motors 40 hp at 575/600 V AC 50/60 Hz for 3 phases motors
Control circuit type	AC 50/60 Hz
Control circuit voltage	415 V AC 50/60 Hz
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	Conforming to IEC 60947
Overtoltage category	III

[I _{th}] conventional free air thermal current	10 A at ≤ 60 °C for signalling circuit 80 A at ≤ 60 °C for power circuit
I _{rms} rated making capacity	140 A AC for signalling circuit conforming to IEC 60947-5-1 900 A at 440 V for power circuit conforming to IEC 60947 250 A DC for signalling circuit conforming to IEC 60947-5-1
Rated breaking capacity	900 A at 440 V for power circuit conforming to IEC 60947
[I _{cw}] rated short-time withstand current	84 A ≤ 40 °C 10 min power circuit 810 A ≤ 40 °C 1 s power circuit 120 A 500 ms signalling circuit 100 A 1 s signalling circuit 140 A 100 ms signalling circuit 400 A ≤ 40 °C 10 s power circuit 208 A ≤ 40 °C 1 min power circuit
Associated fuse rating	100 A gG at ≤ 690 V coordination type 2 for power circuit 10 A gG for signalling circuit conforming to IEC 60947-5-1 100 A gG at ≤ 690 V coordination type 1 for power circuit
Average impedance	1.5 mΩ at 50 Hz - I _{th} 80 A for power circuit
[U _i] rated insulation voltage	690 V for signalling circuit conforming to IEC 60947-1 600 V for power circuit certifications CSA 600 V for power circuit certifications UL 690 V for power circuit conforming to IEC 60947-4-1 600 V for signalling circuit certifications CSA 600 V for signalling circuit certifications UL
Electrical durability	1.1 Mcycles 80 A AC-1 at U _e ≤ 440 V 1.45 Mcycles 50 A AC-3 at U _e ≤ 440 V
Power dissipation per pole	9.6 W AC-1 3.7 W AC-3
Protective cover	With
Mounting support	Plate Rail
Standards	UL 508 EN 60947-5-1 EN 60947-4-1 IEC 60947-5-1 IEC 60947-4-1 CSA C22.2 No 14
Product certifications	LROS GL UL CSA BV CCC RINA GOST DNV
Connections - terminals	Power circuit : EverLink BTR screw connectors 2 cable(s) 1...25 mm ² - cable stiffness: flexible - with cable end Control circuit : screw clamp terminals 1 cable(s) 1...4 mm ² - cable stiffness: flexible - with cable end Power circuit : EverLink BTR screw connectors 1 cable(s) 1...35 mm ² - cable stiffness: flexible - with cable end Power circuit : EverLink BTR screw connectors 1 cable(s) 1...35 mm ² - cable stiffness: flexible - without cable end Power circuit : EverLink BTR screw connectors 1 cable(s) 1...35 mm ² - cable stiffness: solid - without cable end Power circuit : EverLink BTR screw connectors 2 cable(s) 1...25 mm ² - cable stiffness: flexible - without cable end 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: solid - without cable end Power circuit : EverLink BTR screw connectors 2 cable(s) 1...25 mm ² - cable stiffness: solid - 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 - without cable end Control circuit : screw clamp terminals 2 cable(s) 1...4 mm ² - cable stiffness: solid - without cable end
Tightening torque	Power circuit : 5 N.m - on EverLink BTR screw connectors - cable ≤ 25 mm ² hexagonal 4 mm Power circuit : 8 N.m - on EverLink BTR screw connectors - cable 25...35 mm ² hexagonal 4 mm Control 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

Operating time	12...26 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	6 Mcycles
Operating rate	3600 cyc/h at <= 60 °C

Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.8...1.1 Uc operational at 60 °C, AC 50 Hz 0.85...1.1 Uc operational at 60 °C, AC 60 Hz 0.3...0.6 Uc drop-out at 60 °C, AC 50/60 Hz
Inrush power in VA	140 VA at 20 °C (cos φ 0.75) 60 Hz 160 VA at 20 °C (cos φ 0.75) 50 Hz
Hold-in power consumption in VA	15 VA at 20 °C (cos φ 0.3) 50 Hz 13 VA at 20 °C (cos φ 0.3) 60 Hz
Heat dissipation	4...5 W at 50/60 Hz
Auxiliary contacts type	Type mirror contact (1 NC) conforming to IEC 60947-4-1 Type mechanically linked (1 NO + 1 NC) conforming to IEC 60947-5-1
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

Environment

IP degree of protection	IP2x 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	Shocks contactor closed 15 Gn for 11 ms Vibrations contactor open 2 Gn, 5...300 Hz Shocks contactor open 10 Gn for 11 ms Vibrations contactor closed 4 Gn, 5...300 Hz
Height	122 mm
Width	55 mm
Depth	120 mm
Product weight	0.855 kg

Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0001 - 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 📄 End of life manual
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Product end of life instructions	Available
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Contractual warranty

Warranty period	18 months
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