



Main

Range	TeSys
Product name	TeSys D
Product or component type	Contactors
Device short name	LC1D
Contactors application	Motor control Resistive load
Utilisation category	AC-1 AC-3 AC-4
Poles description	3P
Pole contact composition	3 NO
System Voltage	<= 690 V AC power circuit <= 300 V DC 25...400 Hz power circuit
[Ie] rated operational current	125 A (<= 140 °F (60 °C)) at <= 440 V AC AC-1 power circuit 80 A (<= 140 °F (60 °C)) at <= 440 V AC AC-3 power circuit
Motor power kW	22 kW at 220...230 V AC 50/60 Hz AC-3 37 kW at 380...400 V AC 50/60 Hz AC-3 45 kW at 660...690 V AC 50/60 Hz AC-3 45 kW at 415...440 V AC 50/60 Hz AC-3 55 kW at 500 V AC 50/60 Hz AC-3 45 kW at 1000 V AC 50/60 Hz AC-3 15 kW at 400 V AC 50/60 Hz AC-4
Motor power hp	20 hp at 200/208 V AC 50/60 Hz 3 phases motors 7.5 hp at 115 V AC 50/60 Hz 1 phase motors 15 hp at 230/240 V AC 50/60 Hz 1 phase motors 25 hp at 230/240 V AC 50/60 Hz 3 phases motors 60 hp at 460/480 V AC 50/60 Hz 3 phases motors 60 hp at 575/600 V AC 50/60 Hz 3 phases motors
Control circuit type	AC 50/60 Hz
[Uc] control circuit voltage	240 V AC 50/60 Hz
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	Conforming to IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	125 A at <= 140 °F (60 °C) power circuit 10 A at <= 140 °F (60 °C) signalling circuit
Irms rated making capacity	1100 A at 440 V power circuit conforming to IEC 60947 140 A AC signalling circuit conforming to IEC 60947-5-1 250 A DC signalling circuit conforming to IEC 60947-5-1
Rated breaking capacity	1100 A at 440 V power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	135 A <= 104 °F (40 °C) 10 min power circuit 100 A 1 s signalling circuit 120 A 500 ms signalling circuit 140 A 100 ms signalling circuit 640 A <= 104 °F (40 °C) 10 s power circuit 990 A <= 104 °F (40 °C) 1 s power circuit 320 A <= 104 °F (40 °C) 1 min power circuit
Associated fuse rating	160 A gG at <= 690 V coordination type 2 power circuit 200 A gG at <= 690 V coordination type 1 power circuit 10 A gG signalling circuit conforming to IEC

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	60947-5-1
Average impedance	0.8 mOhm at 50 Hz - lth 125 A power circuit
[Ui] rated insulation voltage	1000 V power circuit conforming to IEC 60947-4-1 600 V power circuit certifications CSA 600 V power circuit certifications UL 690 V signalling circuit conforming to IEC 60947-1 600 V signalling circuit certifications CSA 600 V signalling circuit certifications UL
Electrical durability	0.8 Mcycles 125 A AC-1 at Ue ≤ 440 V 1.5 Mcycles 80 A AC-3 at Ue ≤ 440 V
Power dissipation per pole	5.1 W AC-3 12.5 W AC-1
Protective cover	With
Mounting support	Plate Rail
Standards	UL 508 CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1
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) 0...0 in ² (1...2.5 mm ²) - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 1 cable(s) 0...0.01 in ² (1...4 mm ²) - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 2 cable(s) 0...0.01 in ² (1...4 mm ²) - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 1 cable(s) 0...0.01 in ² (1...4 mm ²) - cable stiffness: solid - without cable end Control circuit: screw clamp terminals 2 cable(s) 0...0.01 in ² (1...4 mm ²) - cable stiffness: solid - without cable end Control circuit: screw clamp terminals 1 cable(s) 0...0 in ² (1...2.5 mm ²) - cable stiffness: flexible - with cable end Power circuit: connector 1 cable(s) 0.01...0.08 in ² (4...50 mm ²) - cable stiffness: flexible - without cable end Power circuit: connector 2 cable(s) 0.01...0.04 in ² (4...25 mm ²) - cable stiffness: flexible - without cable end Power circuit: connector 1 cable(s) 0.01...0.08 in ² (4...50 mm ²) - cable stiffness: flexible - with cable end Power circuit: connector 2 cable(s) 0.01...0.02 in ² (4...16 mm ²) - cable stiffness: flexible - with cable end Power circuit: connector 1 cable(s) 0.01...0.08 in ² (4...50 mm ²) - cable stiffness: solid - without cable end Power circuit: connector 2 cable(s) 0.01...0.04 in ² (4...25 mm ²) - cable stiffness: solid - without cable end
Tightening torque	Power circuit: 79.65 lbf.in (9 N.m) - on connector - with screwdriver flat Ø 6 to Ø 8 mm Power circuit: 79.65 lbf.in (9 N.m) - on connector hexagonal 0.16 in (4 mm) Control circuit: 10.62 lbf.in (1.2 N.m) - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 10.62 lbf.in (1.2 N.m) - on screw clamp terminals - with screwdriver Philips No 2
Operating time	20...35 ms closing

	6...20 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	4 Mcycles
Operating rate	3600 cyc/h at <= 140 °F (60 °C)

Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.85...1.1 Uc operational at 131 °F (55 °C), AC 60 Hz 0.3...0.6 Uc drop-out at 131 °F (55 °C), AC 50/60 Hz 0.8...1.1 Uc operational at 131 °F (55 °C), AC 50 Hz
Inrush power in VA	245 VA at 68 °F (20 °C) (cos ϕ 0.75) 60 Hz 245 VA at 68 °F (20 °C) (cos ϕ 0.75) 50 Hz
Hold-in power consumption in VA	26 VA at 68 °F (20 °C) (cos ϕ 0.3) 60 Hz 26 VA at 68 °F (20 °C) (cos ϕ 0.3) 50 Hz
Heat dissipation	6...10 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 signalling circuit
Minimum switching voltage	17 V 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 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	23...140 °F (-5...60 °C)
ambient air temperature for storage	-76...176 °F (-60...80 °C)
permissible ambient air temperature around the device	-40...158 °F (-40...70 °C) at Uc
operating altitude	9842.52 ft (3000 m) without derating in temperature
fire resistance	1562 °F (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 Shocks contactor open 8 Gn for 11 ms Vibrations contactor closed 3 Gn, 5...300 Hz Shocks contactor closed 10 Gn for 11 ms
height	5 in (127 mm)
width	3.35 in (85 mm)
depth	5.12 in (130 mm)
product weight	3.51 lb(US) (1.59 kg)

Offer Sustainability

Green Premium product	Green Premium product
Compliant - since 0701 - Schneider Electric declaration of conformity	Compliant - since 0701 - Schneider Electric declaration of conformity
Reference not containing SVHC above the threshold	Reference not containing SVHC above the threshold
Available	Available
Need no specific recycling operations	Need no specific recycling operations
WARNING: This product can expose you to chemicals including:	WARNING: This product can expose you to chemicals including:
Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer.	Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer.
For more information go to www.p65warnings.ca.gov	For more information go to www.p65warnings.ca.gov

Contractual warranty

Warranty period	18 months
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