



## 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
Pole contact composition	3 NO
System Voltage	<= 690 V AC 25...400 Hz power circuit <= 300 V DC power circuit
[Ie] rated operational current	25 A (<= 140 °F (60 °C)) at <= 440 V AC AC-3 power circuit 40 A (<= 140 °F (60 °C)) at <= 440 V AC AC-1 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	2 hp at 115 V AC 50/60 Hz 1 phase motors 7.5 hp at 200/208 V AC 50/60 Hz 3 phases motors 3 hp at 230/240 V AC 50/60 Hz 1 phase motors 7.5 hp at 230/240 V AC 50/60 Hz 3 phases motors 15 hp at 460/480 V AC 50/60 Hz 3 phases motors 20 hp at 575/600 V AC 50/60 Hz 3 phases motors
Control circuit type	AC 50/60 Hz
[Uc] control circuit voltage	120 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	40 A at <= 140 °F (60 °C) power circuit 10 A at <= 140 °F (60 °C) signalling circuit
Irms rated making capacity	450 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	450 A at 440 V power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	120 A <= 104 °F (40 °C) 1 min power circuit 240 A <= 104 °F (40 °C) 10 s power circuit 380 A <= 104 °F (40 °C) 1 s power circuit 50 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
Associated fuse rating	40 A gG at <= 690 V coordination type 2 power circuit 63 A gG at <= 690 V coordination type 1 power circuit 10 A gG signalling circuit conforming to IEC 60947-5-1

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Average impedance	2 mOhm at 50 Hz - lth 40 A power circuit
[U <sub>i</sub> ] rated insulation voltage	600 V power circuit certifications CSA 600 V power circuit certifications UL 690 V power circuit conforming to IEC 60947-4-1 690 V signalling circuit conforming to IEC 60947-1 600 V signalling circuit certifications CSA 600 V 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
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 <sup>2</sup> (1...2.5 mm <sup>2</sup> ) - cable stiffness: flexible - with cable end Power circuit: screw clamp terminals 1 cable(s) 0...0.02 in <sup>2</sup> (1.5...10 mm <sup>2</sup> ) - cable stiffness: solid - without cable end Control circuit: screw clamp terminals 1 cable(s) 0...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 2 cable(s) 0...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 1 cable(s) 0...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 1 cable(s) 0...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: solid - without cable end Control circuit: screw clamp terminals 2 cable(s) 0...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: solid - without cable end Power circuit: screw clamp terminals 1 cable(s) 0...0.02 in <sup>2</sup> (2.5...10 mm <sup>2</sup> ) - cable stiffness: flexible - without cable end Power circuit: screw clamp terminals 2 cable(s) 0...0.02 in <sup>2</sup> (2.5...10 mm <sup>2</sup> ) - cable stiffness: flexible - without cable end Power circuit: screw clamp terminals 1 cable(s) 0...0.02 in <sup>2</sup> (1...10 mm <sup>2</sup> ) - cable stiffness: flexible - with cable end Power circuit: screw clamp terminals 2 cable(s) 0...0.01 in <sup>2</sup> (1.5...6 mm <sup>2</sup> ) - cable stiffness: flexible - with cable end Power circuit: screw clamp terminals 2 cable(s) 0...0.02 in <sup>2</sup> (2.5...10 mm <sup>2</sup> ) - cable stiffness: solid - without cable end
Tightening torque	Control circuit: 15.04 lbf.in (1.7 N.m) - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 15.04 lbf.in (1.7 N.m) - on screw clamp terminals - with screwdriver Philips No 2 Power circuit: 22.12 lbf.in (2.5 N.m) - on screw clamp terminals - with screwdriver flat Ø 6 mm Power circuit: 22.12 lbf.in (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 <= 140 °F (60 °C)

## Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.3...0.6 Uc drop-out at 140 °F (60 °C), AC 50/60 Hz 0.8...1.1 Uc operational at 140 °F (60 °C), AC 50 Hz 0.85...1.1 Uc operational at 140 °F (60 °C), AC 60 Hz
Inrush power in VA	70 VA at 68 °F (20 °C) (cos $\phi$ 0.75) 60 Hz 70 VA at 68 °F (20 °C) (cos $\phi$ 0.75) 50 Hz
Hold-in power consumption in VA	7.5 VA at 68 °F (20 °C) (cos $\phi$ 0.3) 60 Hz 7 VA at 68 °F (20 °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 signalling circuit
Minimum switching voltage	17 V 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 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 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	3.35 in (85 mm)
width	1.77 in (45 mm)
depth	3.62 in (92 mm)
product weight	0.82 lb(US) (0.37 kg)

## Offer Sustainability

Green Premium product	Green Premium product
Compliant - since 0627 - Schneider Electric declaration of conformity	Compliant - since 0627 - Schneider Electric declaration of conformity
Reference not containing SVHC above the threshold	Reference not containing SVHC above the threshold
Available	Available
Available	Available

## Contractual warranty

Warranty period	18 months
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