



Main

Range of product	TeSys D
Product or component type	Contactors
Device short name	LC1D
Contactors application	Resistive load Motor control
Utilisation category	AC-3 AC-1 AC-4 AC-2
Control circuit type	AC 50/60 Hz
Poles description	3P
Pole contact composition	3 NO
[Ie] rated operational current	80 A (<= 140 °F (60 °C)) at <= 440 V AC AC-1 power circuit 65 A (<= 140 °F (60 °C)) at <= 440 V AC AC-3 power circuit
Motor power kW	30 kW at 380...400 V AC 50/60 Hz 30 kW at 415 V AC 50/60 Hz 30 kW at 440 V AC 50/60 Hz 37 kW at 1000 V AC 50/60 Hz 37 kW at 500 V AC 50/60 Hz 37 kW at 660...690 V AC 50/60 Hz 18.5 kW at 220...230 V AC 50/60 Hz
Motor power hp	10 hp at 230/240 V AC 60 Hz 1P motors conforming to CSA 10 hp at 230/240 V AC 60 Hz 1P motors conforming to UL 20 hp at 200/208 V AC 60 Hz 3P motors conforming to CSA 20 hp at 200/208 V AC 60 Hz 3P motors conforming to UL 20 hp at 230/240 V AC 60 Hz 3P motors conforming to CSA 20 hp at 230/240 V AC 60 Hz 3P motors conforming to UL 5 hp at 115 V AC 60 Hz 1P motors conforming to CSA 5 hp at 115 V AC 60 Hz 1P motors conforming to UL 50 hp at 460/480 V AC 60 Hz 3P motors conforming to CSA 50 hp at 460/480 V AC 60 Hz 3P motors conforming to UL 50 hp at 575/600 V AC 60 Hz 3P motors conforming to CSA 50 hp at 575/600 V AC 60 Hz 3P motors conforming to UL
Control circuit voltage	110 V AC 50/60 Hz
Connections - terminals	Control circuit: screw clamp terminal 1 cable 0...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: solid - without cable end

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

Control circuit: screw clamp terminal 2 cable 0...0.01 in<sup>2</sup> (1...4 mm<sup>2</sup>) - cable stiffness: solid - without cable end  
 Power circuit: screw clamp terminal 1 cable 0...0.05 in<sup>2</sup> (1...35 mm<sup>2</sup>) - cable stiffness: solid - without cable end  
 Power circuit: screw clamp terminal 2 cable 0...0.04 in<sup>2</sup> (1...25 mm<sup>2</sup>) - cable stiffness: solid - without cable end  
 Power circuit: screw clamp terminal 1 cable 0...0.05 in<sup>2</sup> (1...35 mm<sup>2</sup>) - cable stiffness: flexible - without cable end  
 Control circuit: screw clamp terminal 1 cable 0...0.01 in<sup>2</sup> (1...4 mm<sup>2</sup>) - cable stiffness: flexible - with cable end  
 Control circuit: screw clamp terminal 2 cable 0...0 in<sup>2</sup> (1...2.5 mm<sup>2</sup>) - cable stiffness: flexible - without cable end  
 Control circuit: screw clamp terminal 2 cable 0...0.01 in<sup>2</sup> (1...4 mm<sup>2</sup>) - cable stiffness: flexible - with cable end  
 Power circuit: screw clamp terminal 2 cable 0...0.04 in<sup>2</sup> (1...25 mm<sup>2</sup>) - cable stiffness: flexible - with cable end  
 Power circuit: screw clamp terminal 2 cable 0...0.05 in<sup>2</sup> (1...35 mm<sup>2</sup>) - cable stiffness: flexible - without cable end

## Complementary

Coil technology	Without built-in bidirectional peak limiting diode suppressor
Protective cover	With
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
Auxiliary contact composition	1 NO + 1 NC
Control circuit voltage limits	0.3...0.6 U <sub>c</sub> at 140 °F (60 °C) drop-out 50/60 Hz 0.8...1.1 U <sub>c</sub> at 140 °F (60 °C) operational 50 Hz 0.85...1.1 U <sub>c</sub> at 140 °F (60 °C) operational 60 Hz
[Ui] rated insulation voltage	600 V control circuit certifications CSA 600 V control circuit certifications UL 600 V power circuit certifications CSA 600 V power circuit certifications UL 690 V control circuit conforming to IEC 60947-1 690 V power circuit conforming to IEC 60947-1
[Uimp] rated impulse withstand voltage	8 kV
Overvoltage category	III
Mounting support	Rail Plate
Flame retardance	V1 conforming to UL 94
Tightening torque	Power circuit : - on screw clamp terminal - with screwdriver flat Ø 6 mm Control circuit : - on screw clamp terminal - with screwdriver flat Ø 6 mm Control circuit : - on screw clamp terminal - with screwdriver Philips No 2 Power circuit : - on screw clamp terminal - with screwdriver flat Ø 8 mm
System Voltage	<= 690 V AC 25...400 Hz power circuit
[I <sub>th</sub> ] conventional free air thermal current	10 A at <= 140 °F (60 °C) control circuit 80 A at <= 140 °F (60 °C) power circuit
I <sub>rms</sub> rated making capacity	1000 A at 440 V power circuit conforming to IEC 60947 140 A AC for control circuit conforming to IEC 60947-5-1
Rated breaking capacity	1000 A at 440 V power circuit conforming to IEC 60947
Associated fuse rating	10 A gG control circuit conforming to IEC 60947-5-1 125 A gG at <= 690 V coordination type 2 power circuit 160 A gG at <= 690 V coordination type 1 for power circuit
Power dissipation per pole	4.2 W AC-3 6.4 W AC-1
Inrush power in VA	140 VA at 68 °F (20 °C) (cos φ 0.75) 160 VA at 68 °F (20 °C) (cos φ 0.75)
Hold-in power consumption in VA	13 VA at 68 °F (20 °C) (cos φ 0.3) 60 Hz 15 VA at 68 °F (20 °C) (cos φ 0.3) 50 Hz
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	6000000 cycles
Operating rate	3600 cyc/h at <= 140 °F (60 °C)

Minimum switching current	5 mA control circuit
Minimum switching voltage	17 V control circuit
Non-overlap time	1.5 ms on de-energisation between NC and NO contacts 1.5 ms on energisation between NC and NO contacts
Insulation resistance	> 10 MOhm control circuit
Height	5 in (127 mm)
Width	2.95 in (75 mm)
Depth	4.69 in (119 mm)
Product weight	3.09 lb(US) (1.4 kg)

## Environment

Standards	IEC 60947-5-1 UL 508 EN 60947-4-1 IEC 60947-4-1 EN 60947-5-1 CSA C22.2 No 14
Product certifications	CCC CSA DNV BV GOST LROS (Lloyds register of shipping) RINA UL GL
IP degree of protection	IP2x conforming to IEC 60529 IP2x conforming to VDE 0106
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 U <sub>c</sub>
Operating altitude	9842.52 ft (3000 m) without derating in temperature
Fire resistance	1562 °F (850 °C) conforming to IEC 60695-2-1
Shock resistance	10 gn contactor opened 15 gn contactor closed
Vibration resistance	2 gn 5...300 Hz contactor opened 4 gn 5...300 Hz contactor closed
Heat dissipation	4...5 W at 50/60 Hz for control circuit

## Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0701 - Schneider Electric declaration of conformity <a href="#">Schneider Electric declaration of conformity</a>
REACH	Reference not containing SVHC above the threshold <a href="#">Reference not containing SVHC above the threshold</a>
Product environmental profile	Available <a href="#">End of life manual</a>
Product end of life instructions	Available

## Contractual warranty

Warranty period	18 months
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