





Main

Commercial Status	Commercialised
Range of product	TeSys D
Product or component type	Contacteur
Device short name	LC1D
Contacteur application	Motor control Resistive load
Utilisation category	AC-1 AC-3
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	65 A (<= 140 °F (60 °C)) at <= 440 V AC AC-3 for power circuit 80 A (<= 140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit
Motor power kW	37 kW at 660...690 V AC 50/60 Hz 37 kW at 500 V AC 50/60 Hz 30 kW at 380...400 V AC 50/60 Hz 18.5 kW at 220...230 V AC 50/60 Hz
Motor power hp	50 hp at 575/600 V AC 50/60 Hz for 3 phases motors 20 hp at 230/240 V AC 50/60 Hz for 3 phases motors 20 hp at 200/208 V AC 50/60 Hz for 3 phases motors 10 hp at 230/240 V AC 50/60 Hz for 1 phase motors 5 hp at 115 V AC 50/60 Hz for 1 phase motors 40 hp at 460/480 V AC 50/60 Hz for 3 phases motors
Control circuit type	DC standard
Control circuit voltage	24 V DC
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947
Overtoltage category	III
[Ith] conventional free air thermal current	80 A at <= 140 °F (60 °C) for power circuit 10 A at <= 140 °F (60 °C) for signalling circuit
Irms rated making capacity	1000 A at 440 V for power circuit conforming to IEC 60947 250 A DC for signalling circuit conforming to IEC 60947-5-1 140 A AC for signalling circuit conforming to IEC 60947-5-1
Rated breaking capacity	1000 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	260 A <= 104 °F (40 °C) 1 min power circuit 110 A <= 104 °F (40 °C) 10 min power circuit 900 A <= 104 °F (40 °C) 1 s power circuit 520 A <= 104 °F (40 °C) 10 s power circuit 140 A 100 ms signalling circuit 120 A 500 ms signalling circuit 100 A 1 s signalling circuit
Associated fuse rating	125 A gG at <= 690 V coordination type 2 for power circuit 125 A gG at <= 690 V coordination type 1 for power circuit 10 A gG for signalling circuit conforming to IEC 60947-5-1
Average impedance	1.50 mOhm at 50 Hz - Ith 80 A for power circuit

[Ui] rated insulation voltage	600 V for signalling circuit certifications UL 600 V for signalling circuit certifications CSA 690 V for signalling circuit conforming to IEC 60947-1 600 V for power circuit certifications UL 600 V for power circuit certifications CSA 690 V for power circuit conforming to IEC 60947-4-1
Electrical durability	1.45 Mcycles 65 A AC-3 at $U_e \leq 440$ V 1.4 Mcycles 80 A AC-1 at $U_e \leq 440$ V
Power dissipation per pole	6.3 W AC-3 9.6 W AC-1
Protective cover	With
Mounting support	Plate Rail
Standards	EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508 CSA C22.2 No 14
Product certifications	CCC CSA GOST UL
Connections - terminals	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...0.01 in ² (1...4 mm ²) - cable stiffness: solid - without cable end 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 - with 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: flexible - without cable end Power circuit: EverLink BTR screw connectors 2 cable(s) 0...0.04 in ² (1...25 mm ²) - cable stiffness: solid - without cable end Power circuit: EverLink BTR screw connectors 1 cable(s) 0...0.05 in ² (1...35 mm ²) - cable stiffness: solid - without cable end Power circuit: EverLink BTR screw connectors 2 cable(s) 0...0.04 in ² (1...25 mm ²) - cable stiffness: flexible - with cable end Power circuit: EverLink BTR screw connectors 1 cable(s) 0...0.05 in ² (1...35 mm ²) - cable stiffness: flexible - with cable end Power circuit: EverLink BTR screw connectors 2 cable(s) 0...0.04 in ² (1...25 mm ²) - cable stiffness: flexible - without cable end Power circuit: EverLink BTR screw connectors 1 cable(s) 0...0.05 in ² (1...35 mm ²) - cable stiffness: flexible - without cable end
Tightening torque	Control circuit: 15.04 lbf.in (1.7 N.m) - on screw clamp terminals - with screwdriver Philips No 2 Control circuit: 15.04 lbf.in (1.7 N.m) - on screw clamp terminals - with screwdriver flat Ø 6 mm Power circuit: 70.8 lbf.in (8 N.m) - on EverLink BTR screw connectors - cable 0.04...0.05 in ² (25...35 mm ²) hexagonal 0.16 in (4 mm) Power circuit: 44.25 lbf.in (5 N.m) - on EverLink BTR screw connectors - cable ≤ 0.04 in ² (25 mm ²) hexagonal 0.16 in (4 mm)
Operating time	16...24 ms opening 42.5...57.5 ms closing
Safety reliability level	B10d = 2000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1

Mechanical durability	10 Mcycles
Operating rate	3600 cyc/h at <= 140 °F (60 °C)

Complementary

Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.75...1.25 Uc at 140 °F (60 °C) operational 0.1...0.3 Uc at 140 °F (60 °C) drop-out
Time constant	34 ms
Inrush power in W	19 W at 68 °F (20 °C)
Hold-in power consumption in W	7.4 W at 68 °F (20 °C)
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 energisation (between NC and NO contact) 1.5 ms on de-energisation (between NC and NO contact)
Insulation resistance	> 10 MOhm for signalling circuit

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	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	Shocks contactor closed 15 Gn for 11 ms Shocks contactor open 10 Gn for 11 ms Vibrations contactor closed 4 Gn, 5...300 Hz Vibrations contactor open 2 Gn, 5...300 Hz
Height	4.8 in (122 mm)
Width	2.17 in (55 mm)
Depth	4.72 in (120 mm)
Product weight	2.06 lb(US) (0.935 kg)

Ordering and shipping details

Category	22345 - CTR,D-LINE,OPEN,NONREV-NEW
Discount Schedule	I12
GTIN	00785901565468
Nbr. of units in pkg.	1
Package weight(Lbs)	2.25
Product availability	Stock - Normally stocked in distribution facility
Returnability	Y
Country of origin	FR

Offer Sustainability

Sustainable offer status	Green Premium product
RoHS	Compliant - since 0001 - Schneider Electric declaration of conformity
REACH	Reference not containing SVHC above the threshold
Product environmental profile	Available Download Product Environmental
Product end of life instructions	Need no specific recycling operations

Contractual warranty

Period	18 months
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