

LC1D150F7

TeSys D contactor - 3P(3 NO) - AC-3 - ≤ 440 V
150 A - 110 V AC 50/60 Hz coil



Main

Range of product	TeSys D
Range	TeSys
Product name	TeSys D
Product or component type	Contactor
Device short name	LC1D
Contactor 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 ≤ 1000 V AC 25...400 Hz for power circuit
[Ie] rated operational current	150 A (≤ 60 °C) at ≤ 440 V AC AC-3 for power circuit 200 A (≤ 60 °C) at ≤ 440 V AC AC-1 for power circuit
Motor power kW	40 kW at 220...230 V AC 50/60 Hz 100 kW at 660...690 V AC 50/60 Hz 75 kW at 380...400 V AC 50/60 Hz 90 kW at 500 V AC 50/60 Hz 75 kW at 1000 V AC 50/60 Hz 80 kW at 415...440 V AC 50/60 Hz
Motor power hp	40 hp at 200/208 V AC 50/60 Hz for 3 phases motors 50 hp at 230/240 V AC 50/60 Hz for 3 phases motors 100 hp at 460/480 V AC 50/60 Hz for 3 phases motors 125 hp at 575/600 V AC 50/60 Hz for 3 phases motors
Control circuit type	AC 50/60 Hz
Control circuit voltage	110 V AC 50/60 Hz
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	Conforming to IEC 60947
Overvoltage category	III

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

[I _{th}] conventional free air thermal current	200 A at ≤ 60 °C for power circuit
I _{rms} rated making capacity	140 A AC for signalling circuit conforming to IEC 60947-5-1 1660 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	1400 A at 440 V for power circuit conforming to IEC 60947
[I _{cw}] rated short-time withstand current	580 A ≤ 40 °C 1 min power circuit 100 A 1 s signalling circuit 120 A 500 ms signalling circuit 140 A 100 ms signalling circuit 1200 A ≤ 40 °C 10 s power circuit 250 A ≤ 40 °C 10 min power circuit 1400 A ≤ 40 °C 1 s power circuit
Associated fuse rating	250 A gG at ≤ 690 V coordination type 2 for power circuit 315 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	0.6 mΩ at 50 Hz - I _{th} 200 A for power circuit
[U _i] rated insulation voltage	600 V for power circuit certifications UL 690 V for signalling circuit conforming to IEC 60947-1 600 V for power circuit certifications CSA 600 V for signalling circuit certifications CSA 1000 V for power circuit conforming to IEC 60947-4-1 600 V for signalling circuit certifications UL
Electrical durability	1 Mcycles 200 A AC-1 at U _e ≤ 440 V 0.85 Mcycles 150 A AC-3 at U _e ≤ 440 V
Power dissipation per pole	24 W AC-1 13.5 W AC-3
Protective cover	With
Mounting support	Rail Plate
Standards	CSA C22.2 No 14 EN 60947-5-1 IEC 60947-4-1 EN 60947-4-1 UL 508 IEC 60947-5-1
Product certifications	LROS RINA DNV BV CSA CCC UL GL GOST
Connections - terminals	Power circuit : connector 1 cable(s) 10...120 mm ² - cable stiffness: flexible - with cable end Power circuit : connector 2 cable(s) 10...50 mm ² - cable stiffness: flexible - with cable end Power circuit : connector 2 cable(s) 10...50 mm ² - cable stiffness: flexible - without cable end Power circuit : connector 2 cable(s) 10...50 mm ² - cable stiffness: solid - without cable end Power circuit : connector 1 cable(s) 10...120 mm ² - cable stiffness: flexible - without cable end Control circuit : screw clamp terminals 1 cable(s) 1...2.5 mm ² - cable stiffness: solid - without cable end Power circuit : connector 1 cable(s) 10...120 mm ² - cable stiffness: solid - without cable end Control circuit : screw clamp terminals 2 cable(s) 1...2.5 mm ² - cable stiffness: solid - without cable end Control circuit : screw clamp terminals 1 cable(s) 1...2.5 mm ² - cable stiffness: flexible - without cable end Control circuit : screw clamp terminals 2 cable(s) 1...2.5 mm ² - cable stiffness: flexible - without cable end Control circuit : screw clamp terminals 1 cable(s) 1...2.5 mm ² - cable stiffness: flexible - with cable end Control circuit : screw clamp terminals 2 cable(s) 1...2.5 mm ² - cable stiffness: flexible - with cable end
Tightening torque	Control circuit : 1.2 N.m - on screw clamp terminals - with screwdriver Philips No 2 Control circuit : 1.2 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Power circuit : 12 N.m - on connector hexagonal 4 mm
Operating time	40...75 ms opening 20...35 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	8 Mcycles
Operating rate	1200 cyc/h at <= 60 °C

Complementary

Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.3...0.5 U _c drop-out at 55 °C, AC 50/60 Hz 0.8...1.15 U _c operational at 55 °C, AC 50/60 Hz
Inrush power in VA	280...350 VA at 20 °C (cos φ 0.9) 50 Hz 280...350 VA at 20 °C (cos φ 0.9) 60 Hz
Hold-in power consumption in VA	2...18 VA at 20 °C (cos φ 0.9) 50 Hz 2...18 VA at 20 °C (cos φ 0.9) 60 Hz
Heat dissipation	3...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 energisation (between NC and NO contact) 1.5 ms on de-energisation (between NC and NO contact)
Insulation resistance	> 10 MOhm for signalling circuit
Contact compatibility	M13
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 U _c
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	Vibrations contactor closed 4 Gn, 5...300 Hz Shocks contactor closed 15 Gn for 11 ms Shocks contactor open 6 Gn for 11 ms Vibrations contactor open 2 Gn, 5...300 Hz
Height	158 mm
Width	120 mm
Depth	136 mm
Product weight	2.5 kg

Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0932 - 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 Product environmental
Product end of life instructions	Available End of life manual

Contractual warranty

Warranty period	18 months
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