Product datasheet Characteristics

LC1D50AD7

TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 50 A - 42 V AC 50/60 Hz coil



Main

IVIAIII		
Range of product	TeSys D	,
Range	TeSys	
Product name	TeSys D	
Product or component type	Contactor	
Device short name	LC1D	
Contactor application	Resistive load Motor control	
Utilisation category	AC-1 AC-4 AC-3	
Poles description	3P	
Pole contact composition	3 NO	
[Ue] rated operational voltage	<= 300 V DC for power circuit <= 690 V AC 25400 Hz for power circuit	
[le] rated operational current	50 A (<= 60 °C) at <= 440 V AC AC-3 for power circuit 80 A (<= 60 °C) at <= 440 V AC AC-1 for power circuit	
Motor power kW	22 kW at 380400 V AC 50/60 Hz AC-3 25 kW at 415 V AC 50/60 Hz AC-3 30 kW at 440 V AC 50/60 Hz AC-3 30 kW at 500 V AC 50/60 Hz AC-3 33 kW at 660690 V AC 50/60 Hz AC-3 15 kW at 220230 V AC 50/60 Hz AC-3 11 kW at 400 V AC 50/60 Hz AC-4	
Motor power hp	3 hp at 115 V AC 50/60 Hz for 1 phase motors 7.5 hp at 230/240 V AC 50/60 Hz for 1 phase motors 15 hp at 200/208 V AC 50/60 Hz for 3 phases motors 15 hp at 230/240 V AC 50/60 Hz for 3 phases motors 40 hp at 460/480 V AC 50/60 Hz for 3 phases motors 40 hp at 575/600 V AC 50/60 Hz for 3 phases motors	
Control circuit type	AC 50/60 Hz	
Control circuit voltage	42 V AC 50/60 Hz	
Auxiliary contact composition	1 NO + 1 NC	

[Uimp] rated impulse withstand voltage	Conforming to IEC 60947
Overvoltage category	III
[lth] conventional free air thermal current	80 A at <= 60 °C for power circuit 10 A at <= 60 °C for signalling circuit
Irms rated making capacity	900 A at 440 V for power circuit conforming to IEC 60947 140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1
Rated breaking capacity	900 A at 440 V for power circuit conforming to IEC 60947
[lcw] rated short-time withstand current	100 A 1 s signalling circuit 120 A 500 ms signalling circuit 140 A 100 ms signalling circuit 400 A <= 40 °C 10 s power circuit 810 A <= 40 °C 1 s power circuit 84 A <= 40 °C 10 min power circuit 208 A <= 40 °C 1 min power circuit
Associated fuse rating	100 A gG at <= 690 V coordination type 1 for power circuit 100 A gG at <= 690 V coordination type 2 for power circuit 10 A gG for signalling circuit conforming to IEC 60947-5-1
Average impedance	1.5 mOhm at 50 Hz - Ith 80 A for power circuit
[Ui] rated insulation voltage	600 V for power circuit certifications CSA 600 V for power circuit certifications UL 690 V for power circuit conforming to IEC 60947-4-1 690 V for signalling circuit conforming to IEC 60947-1 600 V for signalling circuit certifications CSA 600 V for signalling circuit certifications UL
Electrical durability	1.45 Mcycles 50 A AC-3 at Ue <= 440 V 1.1 Mcycles 80 A AC-1 at Ue <= 440 V
Power dissipation per pole	3.7 W AC-3 9.6 W AC-1
Protective cover	With
Mounting support	Plate Rail
Standards	CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508
Product certifications	RINA BV CSA CCC GOST UL DNV LROS GL
Connections - terminals	Control circuit : screw clamp terminals 2 cable(s) 12.5 mm² - cable stiffness: flexible - with cable end
	Control circuit: screw clamp terminals 1 cable(s) 14 mm² - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 2 cable(s) 14 mm² - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 1 cable(s) 14 mm² - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 1 cable(s) 14 mm² - cable stiffness: solid - without cable end Control circuit: screw clamp terminals 2 cable(s) 14 mm² - cable stiffness: solid - without cable end Power circuit: screw connection 2 cable(s) 125 mm² - cable stiffness: flexible - with cable end Power circuit: screw connection 2 cable(s) 125 mm² - cable stiffness: solid - without cable end Power circuit: screw connection 2 cable(s) 125 mm² - cable stiffness: flexible - without cable end Power circuit: screw connection 1 cable(s) 135 mm² - cable stiffness: flexible - without cable end Power circuit: screw connection 1 cable(s) 135 mm² - cable stiffness: flexible - without cable end Power circuit: screw connection 1 cable(s) 135 mm² - cable stiffness: flexible - without cable end
Tightening torque	Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2 Power circuit: 5 N.m - on EverLink BTR screw connectors - cable <= 25 mm² hexagonal 4 mm Power circuit: 8 N.m - on EverLink BTR screw connectors - cable 2535 mm² hexagonal 4 mm
Operating time	1226 ms closing 419 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	6 Mcycles
Operating rate	3600 cyc/h at <= 60 °C

Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.30.6 Uc drop-out at 60 °C, AC 50/60 Hz 0.81.1 Uc operational at 60 °C, AC 50 Hz 0.851.1 Uc operational at 60 °C, AC 60 Hz
Inrush power in VA	140 VA at 20 °C (cos φ 0.75) 60 Hz 160 VA at 20 °C (cos φ 0.75) 50 Hz
Hold-in power consumption in VA	13 VA at 20 °C (cos φ 0.3) 60 Hz 15 VA at 20 °C (cos φ 0.3) 50 Hz
Heat dissipation	45 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	25400 Hz
Minimum switching current	5 mA for signalling circuit
Minimum switching voltage	17 V for 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 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	-560 °C
Ambient air temperature for storage	-6080 °C
Permissible ambient air temperature around the device	-4070 °C at Uc
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 open 2 Gn, 5300 Hz Vibrations contactor closed 4 Gn, 5300 Hz Shocks contactor open 10 Gn for 11 ms Shocks contactor closed 15 Gn for 11 ms
Height	122 mm
Width	55 mm
Depth	120 mm
Product weight	0.855 kg

Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0001 - 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
	End of life manual
Product end of life instructions	Available

Warranty period

18 months

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9007C68T5 9007CA11 9007FA3 9007HA4 9007HA6 9007KA1 9007KB11 9007MS01S0206 9007MS10S0100 9012GAR4 9012GAW2

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