Product datasheet
Characteristics

LC1D40AB7
TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V
40 A - 24 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-3 AC-1
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	40 A (<= 60 °C) at <= 440 V AC AC-3 for power circuit 60 A (<= 60 °C) at <= 440 V AC AC-1 for power circuit
Motor power kW	22 kW at 500 V AC 50/60 Hz 22 kW at 415...440 V AC 50/60 Hz 11 kW at 220...230 V AC 50/60 Hz 30 kW at 660...690 V AC 50/60 Hz 18.5 kW at 380...400 V AC 50/60 Hz
Motor power hp	30 hp at 460/480 V AC 50/60 Hz for 3 phases motors 30 hp at 575/600 V AC 50/60 Hz for 3 phases motors 5 hp at 230/240 V AC 50/60 Hz for 1 phase motors 10 hp at 200/208 V AC 50/60 Hz for 3 phases motors 3 hp at 115 V AC 50/60 Hz for 1 phase motors 10 hp at 230/240 V AC 50/60 Hz for 3 phases motors
Control circuit type	AC 50/60 Hz
Control circuit voltage	24 V AC 50/60 Hz
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	Conforming to IEC 60947
Overvoltage category	III

[Ith] conventional free air thermal current	10 A at <= 60 °C for signalling circuit 60 A at <= 60 °C for power circuit
Irms rated making capacity	250 A DC for signalling circuit conforming to IEC 60947-5-1 140 A AC for signalling circuit conforming to IEC 60947-5-1 800 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	800 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	720 A <= 40 °C 1 s power circuit 100 A 1 s signalling circuit 72 A <= 40 °C 10 min power circuit 320 A <= 40 °C 10 s power circuit 120 A 500 ms signalling circuit 165 A <= 40 °C 1 min power circuit 140 A 100 ms signalling circuit
Associated fuse rating	80 A gG at <= 690 V coordination type 1 for power circuit 80 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 60 A for power circuit
[Ui] rated insulation voltage	690 V for signalling circuit conforming to IEC 60947-1 600 V for signalling circuit certifications UL 690 V for power circuit conforming to IEC 60947-4-1 600 V for signalling circuit certifications CSA 600 V for power circuit certifications UL 600 V for power circuit certifications CSA
Electrical durability	1.5 Mcycles 40 A AC-3 at Ue <= 440 V 1.4 Mcycles 60 A AC-1 at Ue <= 440 V
Power dissipation per pole	5.4 W AC-1 2.4 W AC-3
Protective cover	With
Mounting support	Rail Plate
Standards	IEC 60947-4-1 IEC 60947-5-1 UL 508 EN 60947-5-1 CSA C22.2 No 14 EN 60947-4-1
Product certifications	UL CSA CCC GOST
Connections - terminals	Power circuit : EverLink BTR screw connectors 2 cable(s) 1...25 mm² - cable stiffness: flexible - without cable end Control circuit : screw clamp terminals 1 cable(s) 1...4 mm² - cable stiffness: flexible - without cable end Power circuit : EverLink BTR screw connectors 1 cable(s) 1...35 mm² - cable stiffness: solid - without cable end Control circuit : screw clamp terminals 2 cable(s) 1...4 mm² - cable stiffness: solid - without cable end Power circuit : EverLink BTR screw connectors 1 cable(s) 1...35 mm² - cable stiffness: flexible - with cable end Power circuit : EverLink BTR screw connectors 2 cable(s) 1...25 mm² - cable stiffness: solid - without cable end Control circuit : screw clamp terminals 1 cable(s) 1...4 mm² - cable stiffness: solid - without cable end Control circuit : screw clamp terminals 1 cable(s) 1...4 mm² - cable stiffness: flexible - with cable end Power circuit : EverLink BTR screw connectors 2 cable(s) 1...25 mm² - cable stiffness: flexible - with cable end Control circuit : screw clamp terminals 2 cable(s) 1...2.5 mm² - cable stiffness: flexible - with cable end Power circuit : EverLink BTR screw connectors 1 cable(s) 1...35 mm² - cable stiffness: flexible - without cable end Control circuit : screw clamp terminals 2 cable(s) 1...4 mm² - cable stiffness: flexible - without cable end
Tightening torque	Power circuit : 8 N.m - on EverLink BTR screw connectors - cable 25...35 mm² hexagonal 4 mm Power circuit : 5 N.m - on EverLink BTR screw connectors - cable <= 25 mm² hexagonal 4 mm Control circuit : 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2 Control circuit : 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm
Operating time	4...19 ms opening 12...26 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	6 Mcycles
Operating rate	3600 cyc/h at <= 60 °C

Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.8...1.1 Uc operational at 60 °C, AC 50 Hz 0.85...1.1 Uc operational at 60 °C, AC 60 Hz 0.3...0.6 Uc drop-out at 60 °C, AC 50/60 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	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	M2
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 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, 5...300 Hz Shocks contactor closed 15 Gn for 11 ms Shocks contactor open 10 Gn for 11 ms Vibrations contactor closed 4 Gn, 5...300 Hz
Height	122 mm
Width	55 mm
Depth	120 mm
Product weight	0.85 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

Contractual warranty

Warranty period	18 months