Product datasheet Characteristics

LC1D12Q7

TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 12 A - 380 V AC 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-3 AC-1 AC-4
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	12 A (<= 60 °C) at <= 440 V AC AC-3 for power circuit 25 A (<= 60 °C) at <= 440 V AC AC-1 for power circuit
Motor power kW	7.5 kW at 500 V AC 50/60 Hz AC-3 7.5 kW at 660690 V AC 50/60 Hz AC-3 5.5 kW at 380400 V AC 50/60 Hz AC-3 5.5 kW at 415440 V AC 50/60 Hz AC-3 3 kW at 220230 V AC 50/60 Hz AC-3 3.7 kW at 400 V AC 50/60 Hz AC-4
Motor power hp	1 hp at 115 V AC 50/60 Hz for 1 phase motors 2 hp at 230/240 V AC 50/60 Hz for 1 phase motors 3 hp at 200/208 V AC 50/60 Hz for 3 phases motors 3 hp at 230/240 V AC 50/60 Hz for 3 phases motors 7.5 hp at 460/480 V AC 50/60 Hz for 3 phases motors 10 hp at 575/600 V AC 50/60 Hz for 3 phases motors
Control circuit type	AC 50/60 Hz
Control circuit voltage	380 V AC 50/60 Hz
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947

Overvoltage category	III
[Ith] conventional free air thermal current	25 A at <= 60 °C for power circuit 10 A at <= 60 °C for signalling circuit
Irms rated making capacity	250 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	250 A at 440 V for power circuit conforming to IEC 60947
[lcw] rated short-time withstand current	105 A <= 40 °C 10 s power circuit 210 A <= 40 °C 1 s power circuit 30 A <= 40 °C 10 min power circuit 61 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
Associated fuse rating	25 A gG at <= 690 V coordination type 2 for power circuit 40 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	2.5 mOhm at 50 Hz - Ith 25 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	2 Mcycles 12 A AC-3 at Ue <= 440 V 0.8 Mcycles 25 A AC-1 at Ue <= 440 V
Power dissipation per pole	0.36 W AC-3 1.56 W AC-1
Protective cover	With
Mounting support	Rail Plate
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	UL CSA DNV CCC GL LROS BV RINA GOST
Connections - terminals	Control circuit: screw clamp terminals 2 cable(s) 12.5 mm² - cable stiffness: flexible - with cable end Power 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: 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 clamp terminals 1 cable(s) 14 mm² - cable stiffness: flexible - without cable end Power circuit: screw clamp terminals 2 cable(s) 14 mm² - cable stiffness: flexible - without cable end Power circuit: screw clamp terminals 2 cable(s) 12.5 mm² - cable stiffness: flexible - with cable end Power circuit: screw clamp terminals 1 cable(s) 14 mm² - cable stiffness: solid - without cable end Power circuit: screw clamp terminals 2 cable(s) 14 mm² - cable stiffness: solid - without cable end Power circuit: screw clamp terminals 2 cable(s) 14 mm² - cable stiffness: solid - without cable end
Tightening torque	Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Power 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 Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2
Operating time	419 ms opening 1222 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	15 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	70 VA at 20 °C (cos φ 0.75) 60 Hz 70 VA at 20 °C (cos φ 0.75) 50 Hz
Hold-in power consumption in VA	7.5 VA at 20 °C (cos φ 0.3) 60 Hz 7 VA at 20 °C (cos φ 0.3) 50 Hz
Heat dissipation	23 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 energisation between NC and NO contact 1.5 ms on de-energisation between NC and NO contact
Insulation resistance	> 10 MOhm for signalling circuit
Motor power range AC-3	2.23 kW 200240 V 3 phases 46 kW 380440 V 3 phases 46 kW 480500 V 3 phases 1.12 kW 100120 V 3 phases 711 kW 525690 V 3 phases
Motor starter type	Direct on-line contactor

Environment

front face conforming to IEC 60529 onforming to IEC 60068-2-30 60 °C .80 °C .70 °C at Uc
.60 °C .80 °C
80 °C
80 °C
.70 °C at Uc
m without derating in temperature
°C conforming to IEC 60695-2-1
onforming to UL 94
ations contactor open 2 Gn, 5300 Hz ations contactor closed 4 Gn, 5300 Hz cks contactor open 10 Gn for 11 ms cks contactor closed 15 Gn for 11 ms
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Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0627 - 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	

18 months

Warranty period

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

9012GBW1 9012GDW5E3 9012GFW1 9012GNG1 9012GNG3 9012GNG6 9013FHG39J69 9013GHG2J30 9050JCK2F30V14 GZ1E02

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