Product datasheet Characteristics

LC1D12E7

TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 12 A - 48 V AC coil



Price*: 33.87 GBP



Main

IVIAIII		
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 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	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 0.5 hp at 115 V AC 50/60 Hz for 1 phase motors	
Control circuit type	AC 50/60 Hz	
[Uc] control circuit voltage	48 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	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	BV CCC CSA DNV GL GOST LROS (Lloyds register of shipping) RINA UL	
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) 14 mm² - cable stiffness: flexible - with cable end Power circuit: screw clamp terminals 1 cable(s) 12.5 mm² - cable stiffness: solid - without 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	

Environment

IP degree of protection	IP20 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	77 mm
Width	45 mm
Depth	86 mm
Product weight	0.325 kg

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	

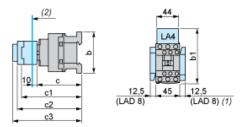
Warranty period

18 months

Product datasheet **Dimensions Drawings**

LC1D12E7

Dimensions



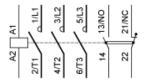
- Including LAD 4BB Minimum electrical clearance (1) (2)

LC1		D09D18	D093D123	D099D129
b	without add-on blocks	77	99	80
b1	with LAD 4BB	94	107	95.5
with LA4 D●2	110 ⁽¹⁾	123 ⁽¹⁾	111.5 ⁽¹⁾	
with LA4 DF, DT	119 ⁽¹⁾	132 ⁽¹⁾	120.5 ⁽¹⁾	
with LA4 DW, DL	126 ⁽¹⁾	139 ⁽¹⁾	127.5 ⁽¹⁾	
С	without cover or add-on blocks	84	84	84
with cover, without add-on blocks	86	86	86	
c1	with LAD N or C (2 or 4 contacts)	117	117	117
c2	with LA6 DK10, LAD 6K10	129	129	129
c3	with LAD T, R, S	137	137	137
with LAD T, R, S and sealing cover	141	141	141	
(1)	Including LAD 4BB.	<u> </u>	1	,

Product datasheet Connections and Schema

LC1D12E7

Wiring



LC1D12E7

Our Proposal - Type 1 : Circuit Breaker + Contactor for Motor Power 5,5 kW and 415 VAC

Motor power (kW)	ICU (kA)	Breaker	Contactor (*)
5.5	15		
		GV2ME16	LC1D12E7

Non contractual pictures.

Type 1 coordination requires that in a short-circuit condition, the contactor or starter must not present any danger to personnel or installations and must not be able to resume operation without repair or the replacement of parts.