



TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 9 A - 110 V AC coil

LC1D09F7

Main

Range of product	TeSys Deca
Product or component type	Contactor
Device short name	LC1D
Contactor application	Resistive load Motor control
Utilisation category	AC-1 AC-3 AC-4 AC-3e
Poles description	3P
[Ue] rated operational voltage	Power circuit: <= 690 V AC 25400 Hz Power circuit: <= 300 V DC
[le] rated operational current	9 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 25 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 9 A (at <60 °C) at <= 440 V AC AC-3e for power circuit
[Uc] control circuit voltage	110 V AC 50/60 Hz

	0.01W +0.00 -0.00 V +0.50(0.01 + 0.00)	
Motor power kW	2.2 kW at 220230 V AC 50/60 Hz (AC-3)	
	4 kW at 380400 V AC 50/60 Hz (AC-3)	
	4 kW at 415440 V AC 50/60 Hz (AC-3)	
	5.5 kW at 500 V AC 50/60 Hz (AC-3)	
	5.5 kW at 660690 V AC 50/60 Hz (AC-3)	
	2.2 kW at 400 V AC 50/60 Hz (AC-4)	
	2.2 kW at 220230 V AC 50/60 Hz (AC-3e)	
	4 kW at 380400 V AC 50/60 Hz (AC-3e)	
	4 kW at 415440 V AC 50/60 Hz (AC-3e) 5.5 kW at 500 V AC 50/60 Hz (AC-3e)	
	5.5 kW at 660690 V AC 50/60 Hz (AC-3e)	
	5.5 kW at 600690 V AC 50/60 HZ (AC-5e)	
Motor power hp	1 hp at 230/240 V AC 50/60 Hz for 1 phase motors	
• •	2 hp at 200/208 V AC 50/60 Hz for 3 phases motors	
	2 hp at 230/240 V AC 50/60 Hz for 3 phases motors	
	5 hp at 460/480 V AC 50/60 Hz for 3 phases motors	
	7.5 hp at 575/600 V AC 50/60 Hz for 3 phases motors	
	0.33 hp at 115 V AC 50/60 Hz for 1 phase motors	
Compatibility code	LC1D	
Pole contact composition	3 NO	
Contact compatibility	M2	
Protective cover	With	
[Ith] conventional free air	25 A (at 60 °C) for power circuit	

Irms rated making capacity

250 A at 440 V for power circuit conforming to IEC 60947

	250 A Do for signaling circuit comorning to IEO 00047-0-1			
Rated breaking capacity	250 A at 440 V for power circuit conforming to IEC 60947			
[Icw] rated short-time withstand current	105 A 40 °C - 10 s for power circuit 210 A 40 °C - 1 s for power circuit 30 A 40 °C - 10 min for power circuit 61 A 40 °C - 1 min for power circuit 100 A - 1 s for signalling circuit 120 A - 500 ms for signalling circuit 140 A - 100 ms for signalling circuit			
Associated fuse rating	10 A gG for signalling circuit conforming to IEC 60947-5-1 25 A gG at <= 690 V coordination type 1 for power circuit 20 A gG at <= 690 V coordination type 2 for power circuit			
Average impedance	2.5 mOhm - Ith 25 A 50 Hz for power circuit			
Power dissipation per pole	1.56 W AC-1 0.2 W AC-3 0.2 W AC-3e			
[Ui] rated insulation voltage	Power circuit: 690 V conforming to IEC 60947-4-1 Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Signalling circuit: 690 V conforming to IEC 60947-1 Signalling circuit: 600 V CSA certified Signalling circuit: 600 V UL certified			
Overvoltage category	III			
Pollution degree	3			
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947			
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			
Electrical durability	0.6 Mcycles 25 A AC-1 at Ue <= 440 V 2 Mcycles 9 A AC-3 at Ue <= 440 V 2 Mcycles 9 A AC-3e at Ue <= 440 V			
Control circuit type	AC at 50/60 Hz standard			
Coil technology	Without built-in suppressor module			
Control circuit voltage limits	0.30.6 Uc (-4070 °C):drop-out AC 50/60 Hz 0.81.1 Uc (-4060 °C):operational AC 50 Hz 0.851.1 Uc (-4060 °C):operational AC 60 Hz 11.1 Uc (6070 °C):operational AC 50/60 Hz			
Inrush power in VA	70 VA 60 Hz cos phi 0.75 (at 20 °C) 70 VA 50 Hz cos phi 0.75 (at 20 °C)			
Hold-in power consumption in VA	7.5 VA 60 Hz cos phi 0.3 (at 20 °C) 7 VA 50 Hz cos phi 0.3 (at 20 °C)			
Heat dissipation	23 W at 50/60 Hz			
Operating time	1222 ms closing 419 ms opening			
Maximum operating rate	3600 cyc/h 60 °C			
Connections - terminals	Power circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 2 14 mm² - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 12.5 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 14 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 14 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 14 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 12.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 14 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 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 Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2 Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2			
Auxiliary contact composition	1 NO + 1 NC			

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 voltage	17 V for signalling circuit		
Minimum switching current	5 mA for signalling circuit		
Insulation resistance	> 10 MOhm 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		
Mounting support	Plate Rail		
Environment			
Standards	CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508 IEC 60335-1		
Product certifications	UL GOST GL CCC BV LROS (Lloyds register of shipping) CSA DNV RINA UKCA		
IP degree of protection	IP20 front face conforming to IEC 60529		
Protective treatment	TH conforming to IEC 60068-2-30		
Climatic withstand	conforming to IACS E10 exposure to damp heat conforming to IEC 60947-1 Annex Q category D exposure to damp heat		
Permissible ambient air temperature around the device	-4060 °C 6070 °C with derating		
Operating altitude	03000 m		
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		
Net weight	0.32 kg		
Packing Units			
Unit Type of Package 1	PCE		
Number of Units in Package 1	1		
Package 1 Height	5 cm		
Package 1 Width	9.2 cm		
Package 1 Length	11.3 cm		
Package 1 Weight	351 g		
Unit Type of Package 2	S02		
Number of Units in Package 2	20		

Package 2 Height	15 cm
Package 2 Width	30 cm
Package 2 Length	40 cm
Package 2 Weight	7.535 kg
Unit Type of Package 3	P06
Number of Units in Package 3	320
Package 3 Height	80 cm
Package 3 Width	80 cm
Package 3 Length	60 cm
Package 3 Weight	130.555 kg

Offer Sustainability

Sustainable offer status	atus Green Premium product	
REACh Regulation	REACh Declaration	
REACh free of SVHC	Yes	
EU RoHS Directive	Compliant EU RoHS Declaration	
Toxic heavy metal free	Yes	
Mercury free	Yes	
China RoHS Regulation	China RoHS declaration Pro-active China RoHS declaration (out of China RoHS legal scope)	
RoHS exemption information	Yes	
Environmental Disclosure	Product Environmental Profile	
Circularity Profile	End of Life Information	
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins	
PVC free	Yes	

Contractual warranty

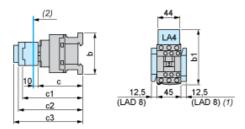
Warranty 18 months

Product datasheet

LC1D09F7

Dimensions Drawings

Dimensions



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

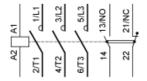
LC1		D09D18	D093D123	D099D129	
b	without add-on blocks	77	99	80	
b1	with LAD 4BB	94	107	95.5	
	with LA4 D●2	110 ⁽¹⁾	123 ⁽¹⁾	111.5 ⁽¹⁾	
	with LA4 DF, DT	119 ⁽¹⁾	132 ⁽¹⁾	120.5 ⁽¹⁾	
	with LA4 DW, DL	126 ⁽¹⁾	139 ⁽¹⁾	127.5 ⁽¹⁾	
С	without cover or add-on blocks	84	84	84	
	with cover, without add-on blocks	86	86	86	
с1	with LAD N or C (2 or 4 contacts)	117	117	117	
с2	with LA6 DK10, LAD 6K10	129	129	129	
с3	with LAD T, R, S	137	137	137	
	with LAD T, R, S and sealing cover	141	141	141	
(1)	Including LAD 4BB.				

Product datasheet

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Connections and Schema

Wiring



Recommended replacement(s)