

# Contactor, TeSys Deca, 3P(3NO), AC-3/3e, <=440V, 9A, 110V AC 50/60Hz coil, screw clamp terminals

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

## Complementary

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)		
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		
Protective cover	With		
[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		

[Icw] rated short-time withstand	105 A 40 °C - 10 s for power circuit
current	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 at 60 °C
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Connections - terminals	Power circuit: screw clamp terminals 1 14 mm <sup>2</sup> - 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		
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 Frimps No 2		
	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 60947-4-1		
	IEC 60335-1:Clause 30.2 IEC 60335-2-40:Annex JJ		
	UL 60335-2-40:Annex JJ		
	CSA C22.2 No 60947-4-1		
Product certifications	UL CCC		
	CSA		
	Marine		
	UKCA		
	EAC CB Scheme		
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		

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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	5.000 cm
Package 1 Width	9.200 cm
Package 1 Length	11.200 cm
Package 1 Weight	353.000 g
Unit Type of Package 2	S02
Number of Units in Package 2	20
Package 2 Height	15.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	7.390 kg

## **Contractual warranty**

Warranty (in months)

18



Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing "Use Better, Use Longer, Use Again" campaign to extend product lifetimes and recyclability.

#### Environmental Data explained >

How we assess product sustainability >

☑ Environmental footprint	
Total lifecycle Carbon footprint	18
Environmental Disclosure	Product Environmental Profile

#### **Use Better**

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
EU RoHS Directive	Compliant
REACh Regulation	REACh Declaration
PVC free	Yes

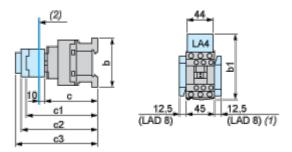
#### **Use Again**

○ Repack and remanufacture	
End of life manual availability	End of Life Information
Take-back	No
WEEE Label	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

## LC1D09F7

#### **Dimensions Drawings**

#### **Dimensions**



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

LC1		D09D18	D093D123	D099D129
b	without add-on blocks	77	99	80
	with LAD 4BB	94	107	95.5
b1	with LA4 D●2	110 <sup>(1)</sup>	123 <sup>(1)</sup>	111.5 <sup>(1)</sup>
	with LA4 DF, DT	<sub>119</sub> (1)	132 <sup>(1)</sup>	120.5 <sup>(1)</sup>
	with LA4 DW, DL	<sub>126</sub> (1)	139(1)	<sub>127.5</sub> (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
c2	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 data sheet**

#### LC1D09F7

Connections and Schema

Wiring

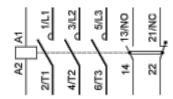


Image of product / Alternate images

#### **Alternative**







