Specifications



TeSys D contactor - 3P(3 NO) -AC-3 - <= 440 V 12 A - 24 V DC coil

LC1D12BD

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-4 AC-3 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	25 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 12 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 12 A (at <60 °C) at <= 440 V AC AC-3e for power circuit	
[Uc] control circuit voltage	24 V DC	

Complementary

Motor power kW	3 kW at 220230 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) 7.5 kW at 500 V AC 50/60 Hz (AC-3) 7.5 kW at 660690 V AC 50/60 Hz (AC-3) 3.7 kW at 400 V AC 50/60 Hz (AC-4) 3 kW at 220230 V AC 50/60 Hz (AC-3e) 5.5 kW at 380400 V AC 50/60 Hz (AC-3e) 5.5 kW at 415440 V AC 50/60 Hz (AC-3e) 7.5 kW at 500 V AC 50/60 Hz (AC-3e) 7.5 kW at 660690 V AC 50/60 Hz (AC-3e)		
Motor power hp	0.5 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		
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
	40 A gG at <= 690 V coordination type 1 for power circuit
	25 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	0.36 W AC-3
rower dissipation per pole	1.56 W AC-3
	0.36 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	30 Mcycles
Electrical durability	2 Mayeles 12 A AC 2 at $L_{\rm ext} = 440$ V
Electrical durability	2 Mcycles 12 A AC-3 at Ue <= 440 V
	0.8 Mcycles 25 A AC-1 at Ue <= 440 V
	2 Mcycles 12 A AC-3e at Ue <= 440 V
Control circuit type	DC standard
Coil technology	With integral suppression device
Control circuit voltage limits	0.10.25 Uc (-4070 °C):drop-out DC
	0.71.25 Uc (-4060 °C):operational DC
	11.25 Uc (-4070 °C):operational DC
Inrush power in W	5.4 W (at 20 °C)
Hold-in power consumption in W	5.4 W at 20 °C
Operating time	63 ±15 % ms closing
	20 ±20 % ms opening
Time constant	28 ms
Maximum aparating rate	2000
Maximum operating rate	3600 cyc/h at 60 °C

Connections - terminals	Dower circuit: screw clamp terminals 1.1. 4 mm², cable stiffnass: flavible without
	Power circuit: screw clamp terminals 1 14 mm ² - cable stiffness: flexible without cable end
	Power circuit: screw clamp terminals 2 14 mm ² - cable stiffness: flexible without cable end
	Power circuit: screw clamp terminals 1 14 mm ² - cable stiffness: flexible with cable end
	Power circuit: screw clamp terminals 2 12.5 mm ² - cable stiffness: flexible with cable end
	Power circuit: screw clamp terminals 1 14 mm ² - cable stiffness: solid without cable end
	Power circuit: screw clamp terminals 2 14 mm ² - cable stiffness: solid without cable end
	Control circuit: screw clamp terminals 1 14 mm ² - cable stiffness: flexible without cable end
	Control circuit: screw clamp terminals 2 14 mm ² - cable stiffness: flexible without cable end
	Control circuit: screw clamp terminals 1 14 \mbox{mm}^2 - cable stiffness: flexible with cable end
	Control circuit: screw clamp terminals 2 12.5 mm ² - cable stiffness: flexible with cable end
	Control circuit: screw clamp terminals 1 14 mm ² - cable stiffness: solid without cable end
	Control circuit: screw clamp terminals 2 14 mm ² - 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

Environment

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
UL
CCC
CSA
Marine
UKCA
EAC
CB Scheme
IP20 front face conforming to IEC 60529
TH conforming to IEC 60068-2-30
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	-40…60 °C 60…70 °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	95 mm	
Net weight	0.485 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	9.000 cm
Package 1 Length	11.000 cm
Package 1 Weight	520.300 g
Unit Type of Package 2	S02
Number of Units in Package 2	15
Package 2 Height	15.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	8.078 kg
Unit Type of Package 3	P06
Number of Units in Package 3	240
Package 3 Height	75.000 cm
Package 3 Width	60.000 cm
Package 3 Length	80.000 cm
Package 3 Weight	136.620 kg

Contractual warranty

Warranty

18 months

C Environmental Data

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 \geq

ą	${\mathcal Q}$ Environmental footprint			
	Carbon footprint (kg.eq.CO2 per CR, Total Life cycle)	37		
	Environmental Disclosure	Product Environmental Profile		

Use Better

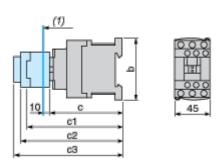
${}^{\ensuremath{\varnothing}}$ Materials and Substances	
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
EU RoHS Directive	Compliant with Exemptions
SCIP Number	50ae7612-fd2e-41e4-a369-50d0dea6e592
REACh Regulation	REACh Declaration
PVC free	Yes

Use Again

♡ Repack and remanufacture		
Circularity Profile	End of Life Information	
Take-back	No	

Dimensions Drawings

Dimensions



(1) Minimum electrical clearance

LC1		D09D18	D093D123	D099D129
b		77	99	80
	without cover or add-on blocks	93	93	93
c	with cover, without add-on blocks	95	95	95
c1	with LAD N or C (2 or 4 contacts)	126	126	126
c2	with LA6 DK10	138	138	138
c3	with LAD T, R, S	146	146	146
	with LAD T, R, S and sealing cover	150	150	150

Connections and Schema

Wiring

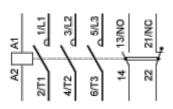


Image of product / Alternate images

Alternative







Technical Illustration

Assembly's dimensions

