# **Product datasheet**

Specifications





# TeSys D, Contactor, 3P(3 NO), AC-3/AC-3e, 0 to 440V, 12A, 230VAC 50/60Hz coil

LC1D12P7

#### Main

Range Of Product	TeSys Deca	
Product Or Component Type	Contactor	
Device Short Name	LC1D	
Contactor Application	Resistive load Motor control	
Utilisation Category	AC-3 AC-1 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	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	230 V AC 50/60 Hz	

#### 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	25 A (at 60 °C) for power circuit
Thermal Current	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
	1.56 W AC-1
	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	15 Mcycles
Electrical Durability	2 Mcycles 12 A AC-3 at Ue <= 440 V
2	0.8 Mcycles 25 A AC-1 at Ue <= 440 V
	2 Mcycles 12 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 Rower Consumption In Va	7.5.1/4.60.1/= and the 0.2 (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 mm <sup>2</sup> - cable stiffness: flexible without cable end
	Power circuit: screw clamp terminals 2 14 mm <sup>2</sup> - cable stiffness: flexible without cable end
	Power circuit: screw clamp terminals 1 14 mm <sup>2</sup> - cable stiffness: flexible with cable end
	Power circuit: screw clamp terminals 2 12.5 mm <sup>2</sup> - cable stiffness: flexible with cable end
	Power circuit: screw clamp terminals 1 14 mm <sup>2</sup> - cable stiffness: solid without cable end
	Power circuit: screw clamp terminals 2 14 mm <sup>2</sup> - cable stiffness: solid without cable end
	Control circuit: screw clamp terminals 1 14 mm <sup>2</sup> - cable stiffness: flexible without cable end
	Control circuit: screw clamp terminals 2 14 mm <sup>2</sup> - cable stiffness: flexible without cable end
	Control circuit: screw clamp terminals 1 14 mm <sup>2</sup> - cable stiffness: flexible with cable end
	Control circuit: screw clamp terminals 2 12.5 mm <sup>2</sup> - cable stiffness: flexible with cable end
	Control circuit: screw clamp terminals 1 14 mm <sup>2</sup> - cable stiffness: solid without cable end
	Control circuit: screw clamp terminals 2 14 mm <sup>2</sup> - 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
Insulation Resistance Non-Overlap Time	<ul> <li>&gt; 10 MOhm for signalling circuit</li> <li>1.5 ms on de-energisation between NC and NO contact</li> <li>1.5 ms on energisation between NC and NO contact</li> </ul>

### 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	CSA GOST BV RINA DNV LROS (Lloyds register of shipping) GL CCC UL UL		
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	0.325 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	7.388 kg

# **Contractual warranty**

Warranty

18 months

# Sustainability Screen Premium

**Green Premium<sup>TM</sup> label** is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >



Transparency RoHS/REACh

### Well-being performance

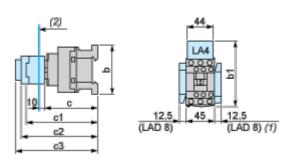
Reach Free Of Svhc
 Toxic Heavy Metal Free
 Mercury Free
 Rohs Exemption Information Yes
 Pvc Free

#### **Certifications & Standards**

Reach Regulation	REACh Declaration
Eu Rohs Directive	Compliant EU RoHS Declaration
China Rohs Regulation	China RoHS declaration Pro-active China RoHS declaration (out of China RoHS legal scope)
Environmental Disclosure	Product Environmental Profile
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
Circularity Profile	End of Life Information

#### **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
	with LA4 D•2	<sub>110</sub> (1)	<sub>123</sub> (1)	111.5 <b>(1)</b>
b1	with LA4 DF, DT	<sub>119</sub> (1)	132 <sup>(1)</sup>	120.5 <b>(1)</b>
	with LA4 DW, DL	126 <sup>(1)</sup>	<sub>139</sub> (1)	<sub>127.5</sub> (1)
с	without cover or add-on blocks	84	84	84
C	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
-2	with LAD T, R, S	137	137	137
c3	with LAD T, R, S and sealing cover	141	141	141
(1)	Including LAD 4BB.			

## **Product datasheet**

Connections and Schema

Wiring

