

Product datasheet

Specifications



TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 50 A - 220 V AC 50/60 Hz coil

LC1D50AM7

Main

Range	TeSys TeSys Deca
Range Of Product	TeSys Deca
Product Or Component Type	Contactor
Device Short Name	LC1D
Contactor Application	Resistive load Motor control
Utilisation Category	AC-4 AC-1 AC-3 AC-3e
Poles Description	3P
[Ue] Rated Operational Voltage	Power circuit: <= 690 V AC 25...400 Hz Power circuit: <= 300 V DC
[Ie] Rated Operational Current	50 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 80 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 50 A (at <60 °C) at <= 440 V AC AC-3e for power circuit
[Uc] Control Circuit Voltage	220 V AC 50/60 Hz

Complementary

Motor Power Kw	15 kW at 220...230 V AC 50/60 Hz (AC-3) 22 kW at 380...400 V AC 50/60 Hz (AC-3) 30 kW at 500 V AC 50/60 Hz (AC-3) 33 kW at 660...690 V AC 50/60 Hz (AC-3) 25 kW at 415 V AC 50/60 Hz (AC-3) 30 kW at 440 V AC 50/60 Hz (AC-3) 11 kW at 400 V AC 50/60 Hz (AC-4) 15 kW at 220...230 V AC 50/60 Hz (AC-3e) 22 kW at 380...400 V AC 50/60 Hz (AC-3e) 30 kW at 500 V AC 50/60 Hz (AC-3e) 33 kW at 660...690 V AC 50/60 Hz (AC-3e) 25 kW at 415 V AC 50/60 Hz (AC-3e) 30 kW at 440 V AC 50/60 Hz (AC-3e)
Motor Power Hp	3 hp at 115 V AC 50/60 Hz for 1 phase motors 7.5 hp at 230/240 V AC 50/60 Hz for 1 phase motors 15 hp at 200/208 V AC 50/60 Hz for 3 phases motors 15 hp at 230/240 V AC 50/60 Hz for 3 phases motors 40 hp at 460/480 V AC 50/60 Hz for 3 phases motors 40 hp at 575/600 V AC 50/60 Hz for 3 phases motors
Compatibility Code	LC1D
Pole Contact Composition	3 NO
Contact Compatibility	M2
Protective Cover	With

[I_{th}] Conventional Free Air Thermal Current	10 A (at 60 °C) for signalling circuit 80 A (at 60 °C) for power circuit
Irms Rated Making Capacity	140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1 900 A at 440 V for power circuit conforming to IEC 60947
Rated Breaking Capacity	900 A at 440 V for power circuit conforming to IEC 60947
[I_{cw}] Rated Short-Time Withstand Current	400 A 40 °C - 10 s for power circuit 810 A 40 °C - 1 s for power circuit 84 A 40 °C - 10 min for power circuit 208 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 60947-5-1 100 A gG at ≤ 690 V coordination type 1 for power circuit 100 A gG at ≤ 690 V coordination type 2 for power circuit
Average Impedance	1.5 mOhm - I _{th} 80 A 50 Hz for power circuit
Power Dissipation Per Pole	3.7 W AC-3 9.6 W AC-1 3.7 W AC-3e
[U_i] Rated Insulation Voltage	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 Power circuit: 690 V conforming to IEC 60947-4-1
Overvoltage Category	III
Pollution Degree	3
[U_{imp}] 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	6 Mcycles
Electrical Durability	1.45 Mcycles 50 A AC-3 at U _e ≤ 440 V 1.1 Mcycles 80 A AC-1 at U _e ≤ 440 V 1.45 Mcycles 50 A AC-3e at U _e ≤ 440 V
Control Circuit Type	AC at 50/60 Hz standard
Coil Technology	Without built-in suppressor module
Control Circuit Voltage Limits	0.3...0.6 U _c (-40...70 °C):drop-out AC 50/60 Hz 0.8...1.1 U _c (-40...60 °C):operational AC 50 Hz 0.85...1.1 U _c (-40...60 °C):operational AC 60 Hz 1...1.1 U _c (60...70 °C):operational AC 50/60 Hz
Inrush Power In Va	140 VA 60 Hz cos phi 0.75 (at 20 °C) 160 VA 50 Hz cos phi 0.75 (at 20 °C)
Hold-In Power Consumption In Va	13 VA 60 Hz cos phi 0.3 (at 20 °C) 15 VA 50 Hz cos phi 0.3 (at 20 °C)
Heat Dissipation	4...5 W at 50/60 Hz
Operating Time	4...19 ms opening 12...26 ms closing
Maximum Operating Rate	3600 cyc/h 60 °C

Connections - Terminals	Control circuit: screw clamp terminals 2 1...2.5 mm ² - cable stiffness: flexible with cable end
	Control circuit: screw clamp terminals 1 1...4 mm ² - cable stiffness: flexible without cable end
	Control circuit: screw clamp terminals 2 1...4 mm ² - cable stiffness: flexible without cable end
	Control circuit: screw clamp terminals 1 1...4 mm ² - cable stiffness: flexible with cable end
	Control circuit: screw clamp terminals 1 1...4 mm ² - cable stiffness: solid without cable end
	Control circuit: screw clamp terminals 2 1...4 mm ² - cable stiffness: solid without cable end
	Power circuit: EverLink BTR screw connectors 1 1...35 mm ² - cable stiffness: flexible without cable end
	Power circuit: EverLink BTR screw connectors 2 1...25 mm ² - cable stiffness: flexible without cable end
	Power circuit: EverLink BTR screw connectors 1 1...35 mm ² - cable stiffness: flexible with cable end
	Power circuit: EverLink BTR screw connectors 2 1...25 mm ² - cable stiffness: flexible with cable end
	Power circuit: EverLink BTR screw connectors 1 1...35 mm ² - cable stiffness: solid without cable end
	Power circuit: EverLink BTR screw connectors 2 1...25 mm ² - cable stiffness: solid without cable end

Tightening Torque	Control circuit: 1.7 N.m - on EverLink BTR screw connectors - with screwdriver flat Ø 6 mm
	Control circuit: 1.7 N.m - on EverLink BTR screw connectors - with screwdriver Philips No 2
	Power circuit: 8 N.m - on EverLink BTR screw connectors - cable 25...35 mm ² hexagonal screw head 4 mm
	Power circuit: 5 N.m - on EverLink BTR screw connectors - cable 1...25 mm ² hexagonal screw head 4 mm
	Control circuit: 1.7 N.m - on EverLink BTR screw connectors - with screwdriver pozidriv No 2
	Power circuit: 2.5 N.m - on EverLink BTR screw connectors - with screwdriver pozidriv No 2

Auxiliary Contact Composition	1 NO + 1 NC
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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
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Signalling Circuit Frequency	25...400 Hz
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Minimum Switching Voltage	17 V for signalling circuit
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Minimum Switching Current	5 mA for signalling circuit
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Insulation Resistance	> 10 MOhm for signalling circuit
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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	RINA
	DNV
	CSA
	GOST
	BV
	GL
	UL
	CCC
	LROS (Lloyds register of shipping)

Ip Degree Of Protection	IP20 front face conforming to IEC 60529
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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	-40...60 °C 60...70 °C with derating
Operating Altitude	0...3000 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, 5...300 Hz) Vibrations contactor closed (4 Gn, 5...300 Hz) Shocks contactor closed (15 Gn for 11 ms) Shocks contactor open (10 Gn for 11 ms)
Height	122 mm
Width	55 mm
Depth	120 mm
Net Weight	0.855 kg

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	6.2 cm
Package 1 Width	13.5 cm
Package 1 Length	15.2 cm
Package 1 Weight	916.0 g
Unit Type Of Package 2	S02
Number Of Units In Package 2	10
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	9.93 kg
Unit Type Of Package 3	P06
Number Of Units In Package 3	160
Package 3 Height	77.0 cm
Package 3 Width	80.0 cm
Package 3 Length	60.0 cm
Package 3 Weight	165.698 kg

Contractual warranty

Warranty	12 months
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Sustainability

Green Premium™ label is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO₂ 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](#)

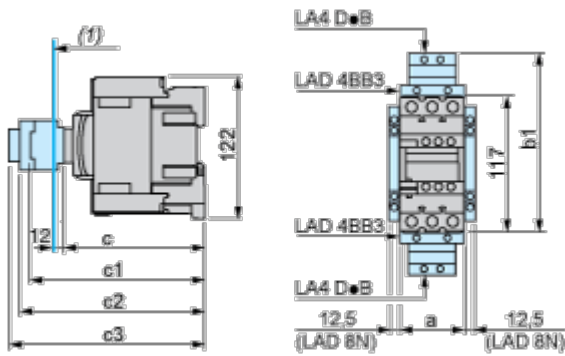
Weee

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



(1) Minimum electrical clearance

LC1		D40A...D65A
a		55
b1	with LA4 D•2	–
	with LA4 DB3 or LAD 4BB3	136
	with LA4 DF, DT	157
	with LA4 DM, DW, DL	166
c	without cover or add-on blocks	118
	with cover, without add-on blocks	120
c1	with LAD N (1 contact)	–
	with LAD N or C (2 or 4 contacts)	150
c2	with LA6 DK10, LAD 6DK	163
c3	with LAD T, R, S	171
	with LAD T, R, S and sealing cover	175

Wiring

