

# Product datasheet

Specifications



## TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 80 A - 48 V AC 50/60 Hz coil

LC1D80E7

### Main

Range	TeSys
Range of product	TeSys Deca
Product or component type	Contactors
Device short name	LC1D
Contactors application	Motor control Resistive load
Utilisation category	AC-3 AC-3e AC-4 AC-1
Poles description	3P
[Ue] rated operational voltage	Power circuit: <= 300 V DC 25...400 Hz Power circuit: <= 690 V AC
[Ie] rated operational current	125 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 80 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 80 A (at <60 °C) at <= 440 V AC AC-3e for power circuit
[Uc] control circuit voltage	48 V AC 50/60 Hz

### Complementary

Motor power kW	22 kW at 220...230 V AC 50/60 Hz (AC-3) 37 kW at 380...400 V AC 50/60 Hz (AC-3) 45 kW at 415...440 V AC 50/60 Hz (AC-3) 55 kW at 500 V AC 50/60 Hz (AC-3) 45 kW at 660...690 V AC 50/60 Hz (AC-3) 15 kW at 400 V AC 50/60 Hz (AC-4) 22 kW at 220...230 V AC 50/60 Hz (AC-3e) 37 kW at 380...400 V AC 50/60 Hz (AC-3e) 45 kW at 415...440 V AC 50/60 Hz (AC-3e) 55 kW at 500 V AC 50/60 Hz (AC-3e) 45 kW at 660...690 V AC 50/60 Hz (AC-3e)
Motor power hp	7.5 hp at 120 V AC 50/60 Hz for 1 phase motors 15 hp at 230/240 V AC 50/60 Hz for 1 phase motors 30 hp at 200/208 V AC 50/60 Hz for 3 phases motors 30 hp at 230/240 V AC 50/60 Hz for 3 phases motors 60 hp at 460/480 V AC 50/60 Hz for 3 phases motors 60 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	10 A (at 60 °C) for signalling circuit 125 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 1100 A at 440 V for power circuit conforming to IEC 60947

Excluding VAT, FCA Jabal Ali & are subject to change – check with your local distributor.

<b>Rated breaking capacity</b>	1100 A at 440 V for power circuit conforming to IEC 60947
<b>[Icw] rated short-time withstand current</b>	640 A 40 °C - 10 s for power circuit 990 A 40 °C - 1 s for power circuit 135 A 40 °C - 10 min for power circuit 320 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
<b>Associated fuse rating</b>	10 A gG for signalling circuit conforming to IEC 60947-5-1 200 A gG at ≤ 690 V coordination type 1 for power circuit 160 A gG at ≤ 690 V coordination type 2 for power circuit
<b>Average impedance</b>	0.8 mOhm - Ith 125 A 50 Hz for power circuit
<b>Power dissipation per pole</b>	5.1 W AC-3 12.5 W AC-1 5.1 W AC-3e
<b>[Ui] rated insulation voltage</b>	Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Power circuit: 1000 V conforming to IEC 60947-4-1 Signalling circuit: 690 V conforming to IEC 60947-1 Signalling circuit: 600 V CSA certified Signalling circuit: 600 V UL certified
<b>Overvoltage category</b>	III
<b>Pollution degree</b>	3
<b>[Uimp] rated impulse withstand voltage</b>	8 kV conforming to IEC 60947
<b>Safety reliability level</b>	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
<b>Mechanical durability</b>	4 Mcycles
<b>Electrical durability</b>	0.8 Mcycles 125 A AC-1 at $U_e \leq 440$ V 1.5 Mcycles 80 A AC-3 at $U_e \leq 440$ V 1.5 Mcycles 80 A AC-3e at $U_e \leq 440$ V
<b>Control circuit type</b>	AC at 50/60 Hz standard
<b>Coil technology</b>	Without built-in suppressor module
<b>Control circuit voltage limits</b>	0.85...1.1 $U_c$ (-40...55 °C):operational AC 60 Hz 0.3...0.6 $U_c$ (-40...70 °C):drop-out AC 50/60 Hz 0.8...1.1 $U_c$ (-40...55 °C):operational AC 50 Hz 1...1.1 $U_c$ (55...70 °C):operational AC 50/60 Hz
<b>Inrush power in VA</b>	245 VA 60 Hz cos phi 0.75 (at 20 °C) 245 VA 50 Hz cos phi 0.75 (at 20 °C)
<b>Hold-in power consumption in VA</b>	26 VA 60 Hz cos phi 0.3 (at 20 °C) 26 VA 50 Hz cos phi 0.3 (at 20 °C)
<b>Heat dissipation</b>	6...10 W at 50/60 Hz
<b>Operating time</b>	20...35 ms closing 6...20 ms opening
<b>Maximum operating rate</b>	3600 cyc/h 60 °C
<b>Maximum operating rate</b>	3600 cyc/h at 60 °C

<b>Connections - terminals</b>	Control circuit: screw clamp terminals 2 1...2.5 mm <sup>2</sup> - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1...2.5 mm <sup>2</sup> - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 1...4 mm <sup>2</sup> - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 1...4 mm <sup>2</sup> - cable stiffness: solid without cable end Power circuit: connector 1 4...50 mm <sup>2</sup> - cable stiffness: flexible without cable end Power circuit: connector 2 4...25 mm <sup>2</sup> - cable stiffness: flexible without cable end Power circuit: connector 1 4...50 mm <sup>2</sup> - cable stiffness: flexible with cable end Power circuit: connector 2 4...16 mm <sup>2</sup> - cable stiffness: flexible with cable end Power circuit: connector 1 4...50 mm <sup>2</sup> - cable stiffness: solid without cable end Power circuit: connector 2 4...25 mm <sup>2</sup> - cable stiffness: solid without cable end
<b>Tightening torque</b>	Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver Philips No 2 Power circuit: 12 N.m - on connector - with screwdriver flat Ø 6 to Ø 8 mm Power circuit: 12 N.m - on connector hexagonal screw head 4 mm Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver pozidriv No 2
<b>Auxiliary contact composition</b>	1 NO + 1 NC
<b>Auxiliary contacts type</b>	type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1 type mirror contact 1 NC conforming to IEC 60947-4-1
<b>Signalling circuit frequency</b>	25...400 Hz
<b>Minimum switching voltage</b>	17 V for signalling circuit
<b>Minimum switching current</b>	5 mA for signalling circuit
<b>Insulation resistance</b>	> 10 MOhm for signalling circuit
<b>Non-overlap time</b>	1.5 ms on de-energisation between NC and NO contact 1.5 ms on energisation between NC and NO contact
<b>Mounting support</b>	Plate Rail

## Environment

<b>Standards</b>	EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 CSA C22.2 No 14 UL 60947-4-1 IEC 60335-2-40:Annex JJ UL 60335-2-40:Annex JJ IEC 60335-1:Clause 30.2
<b>Product certifications</b>	CCC UL CB Scheme CSA CE UKCA Marine EAC
<b>IP degree of protection</b>	IP20 front face conforming to IEC 60529
<b>Protective treatment</b>	TH conforming to IEC 60068-2-30
<b>Climatic withstand</b>	conforming to IACS E10 exposure to damp heat
<b>Permissible ambient air temperature around the device</b>	-40...60 °C 60...70 °C with derating
<b>Operating altitude</b>	0...3000 m
<b>Fire resistance</b>	850 °C conforming to IEC 60695-2-1
<b>Flame retardance</b>	V1 conforming to UL 94

<b>Mechanical robustness</b>	Vibrations contactor open (2 Gn, 5...300 Hz) Shocks contactor open (8 Gn for 11 ms) Vibrations contactor closed (3 Gn, 5...300 Hz) Shocks contactor closed (10 Gn for 11 ms)
<b>Height</b>	127 mm
<b>Width</b>	85 mm
<b>Depth</b>	130 mm
<b>Net weight</b>	1.59 kg

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	16.000 cm
<b>Package 1 Width</b>	13.500 cm
<b>Package 1 Length</b>	9.500 cm
<b>Package 1 Weight</b>	1.554 kg
<b>Unit Type of Package 2</b>	S02
<b>Number of Units in Package 2</b>	5
<b>Package 2 Height</b>	15 cm
<b>Package 2 Width</b>	30 cm
<b>Package 2 Length</b>	40 cm
<b>Package 2 Weight</b>	8.085 kg
<b>Unit Type of Package 3</b>	P06
<b>Number of Units in Package 3</b>	80
<b>Package 3 Height</b>	75.000 cm
<b>Package 3 Width</b>	60.000 cm
<b>Package 3 Length</b>	80.000 cm
<b>Package 3 Weight</b>	133.180 kg

## Contractual warranty

<b>Warranty</b>	18 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-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 >](#)



Sustainable Packaging Transparency RoHS/REACH


## Resource performance


 Sustainable Packaging

## Well-being performance

 Reach Free Of Svhc

 Toxic Heavy Metal Free

 Mercury Free

 Rohs Exemption Information [Yes](#)

## 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)

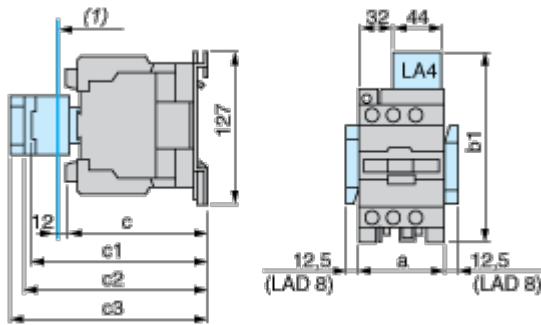
Environmental Disclosure [Product Environmental Profile](#)

Weee The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Circularity Profile No need of specific recycling operations

Dimensions Drawings

Dimensions



(1) Minimum electrical clearance

LC1		D80	D95
<b>a</b>		85	85
<b>b1</b>	with LA4 D•2	135	135
	with LA4 DB3 or LAD 4BB3	135	–
	with LA4 DF, DT	142	142
	with LA4 DM, DW, DL	150	150
<b>c</b>	without cover or add-on blocks	125	125
	with cover, without add-on blocks	130	130
<b>c1</b>	with LAD N (1 contact)	150	150
	with LAD N or C (2 or 4 contacts)	158	158
<b>c2</b>	with LA6 DK10, LAD 6DK	170	170
<b>c3</b>	with LAD T, R, S	178	178
	with LAD T, R, S and sealing cover	182	182

Connections and Schema

Wiring

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