

# Product datasheet

Specifications



## TeSys D contactor - 3P(3 NO) - AC-3 - $\leq 440$ V 50 A - 380 V AC 50/60 Hz coil

LC1D50AQ7

### Main

Range	TeSys TeSys Deca
Range of product	TeSys Deca
Product or component type	Contactor
Device short name	LC1D
Contactor application	Motor control Resistive load
Utilisation category	AC-4 AC-1 AC-3 AC-3e
Poles description	3P
[Ue] rated operational voltage	Power circuit: $\leq 690$ V AC 25...400 Hz Power circuit: $\leq 300$ V DC
[Ie] rated operational current	50 A (at $\leq 60$ °C) at $\leq 440$ V AC AC-3 for power circuit 80 A (at $\leq 60$ °C) at $\leq 440$ V AC AC-1 for power circuit 50 A (at $\leq 60$ °C) at $\leq 440$ V AC AC-3e for power circuit
[Uc] control circuit voltage	380 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
Protective cover	With
[Ith] conventional free air thermal current	10 A (at 60 °C) for signalling circuit 80 A (at 60 °C) for power circuit

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

<b>Irms rated making capacity</b>	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
<b>Rated breaking capacity</b>	900 A at 440 V for power circuit conforming to IEC 60947
<b>[Icw] rated short-time withstand current</b>	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
<b>Associated fuse rating</b>	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
<b>Average impedance</b>	1.5 mOhm - Ith 80 A 50 Hz for power circuit
<b>Power dissipation per pole</b>	3.7 W AC-3 9.6 W AC-1 3.7 W AC-3e
<b>[Ui] rated insulation voltage</b>	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
<b>Overvoltage category</b>	III
<b>Pollution degree</b>	3
<b>[Uimp] rated impulse withstand voltage</b>	6 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>	6 Mcycles
<b>Electrical durability</b>	1.45 Mcycles 50 A AC-3 at Ue <= 440 V 1.1 Mcycles 80 A AC-1 at Ue <= 440 V 1.45 Mcycles 50 A AC-3e at Ue <= 440 V
<b>Control circuit type</b>	AC at 50/60 Hz
<b>Coil technology</b>	Without built-in suppressor module
<b>Control circuit voltage limits</b>	0.3...0.6 Uc (-40...70 °C):drop-out AC 50/60 Hz 0.8...1.1 Uc (-40...60 °C):operational AC 50 Hz 0.85...1.1 Uc (-40...60 °C):operational AC 60 Hz 1...1.1 Uc (60...70 °C):operational AC 50/60 Hz
<b>Inrush power in VA</b>	140 VA 60 Hz cos phi 0.75 (at 20 °C) 160 VA 50 Hz cos phi 0.75 (at 20 °C)
<b>Hold-in power consumption in VA</b>	13 VA 60 Hz cos phi 0.3 (at 20 °C) 15 VA 50 Hz cos phi 0.3 (at 20 °C)
<b>Heat dissipation</b>	4...5 W at 50/60 Hz
<b>Operating time</b>	4...19 ms opening 12...26 ms closing
<b>Maximum operating rate</b>	3600 cyc/h at 60 °C

<b>Connections - terminals</b>	<p>Control circuit: screw clamp terminals 2 1...2.5 mm<sup>2</sup> - cable stiffness: flexible with cable end</p> <p>Control circuit: screw clamp terminals 1 1...4 mm<sup>2</sup> - cable stiffness: flexible without cable end</p> <p>Control circuit: screw clamp terminals 2 1...4 mm<sup>2</sup> - cable stiffness: flexible without cable end</p> <p>Control circuit: screw clamp terminals 1 1...4 mm<sup>2</sup> - cable stiffness: flexible with cable end</p> <p>Control circuit: screw clamp terminals 1 1...4 mm<sup>2</sup> - cable stiffness: solid without cable end</p> <p>Control circuit: screw clamp terminals 2 1...4 mm<sup>2</sup> - cable stiffness: solid without cable end</p> <p>Power circuit: EverLink BTR screw connectors 1 1...35 mm<sup>2</sup> - cable stiffness: flexible without cable end</p> <p>Power circuit: EverLink BTR screw connectors 2 1...25 mm<sup>2</sup> - cable stiffness: flexible without cable end</p> <p>Power circuit: EverLink BTR screw connectors 1 1...35 mm<sup>2</sup> - cable stiffness: flexible with cable end</p> <p>Power circuit: EverLink BTR screw connectors 2 1...25 mm<sup>2</sup> - cable stiffness: flexible with cable end</p> <p>Power circuit: EverLink BTR screw connectors 1 1...35 mm<sup>2</sup> - cable stiffness: solid without cable end</p> <p>Power circuit: EverLink BTR screw connectors 2 1...25 mm<sup>2</sup> - cable stiffness: solid without cable end</p>
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<b>Tightening torque</b>	<p>Control circuit: 1.7 N.m - on EverLink BTR screw connectors - with screwdriver flat Ø 6 mm</p> <p>Control circuit: 1.7 N.m - on EverLink BTR screw connectors - with screwdriver Philips No 2</p> <p>Power circuit: 8 N.m - on EverLink BTR screw connectors - cable 25...35 mm<sup>2</sup> hexagonal screw head 4 mm</p> <p>Power circuit: 5 N.m - on EverLink BTR screw connectors - cable 1...25 mm<sup>2</sup> hexagonal screw head 4 mm</p> <p>Control circuit: 1.7 N.m - on EverLink BTR screw connectors - with screwdriver pozidriv No 2</p> <p>Power circuit: 2.5 N.m - on EverLink BTR screw connectors - with screwdriver pozidriv No 2</p>
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<b>Auxiliary contact composition</b>	1 NO + 1 NC
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<b>Auxiliary contacts type</b>	<p>type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1</p> <p>type mirror contact 1 NC conforming to IEC 60947-4-1</p>
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<b>Signalling circuit frequency</b>	25...400 Hz
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<b>Minimum switching voltage</b>	17 V for signalling circuit
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<b>Minimum switching current</b>	5 mA for signalling circuit
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<b>Insulation resistance</b>	> 10 MOhm for signalling circuit
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<b>Non-overlap time</b>	<p>1.5 ms on de-energisation between NC and NO contact</p> <p>1.5 ms on energisation between NC and NO contact</p>
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<b>Mounting support</b>	<p>Plate</p> <p>Rail</p>
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## Environment

<b>Standards</b>	<p>EN 60947-4-1</p> <p>EN 60947-5-1</p> <p>IEC 60947-4-1</p> <p>IEC 60947-5-1</p> <p>CSA C22.2 No 14</p> <p>UL 60947-4-1</p> <p>IEC 60335-2-40:Annex JJ</p> <p>UL 60335-2-40:Annex JJ</p> <p>IEC 60335-1:Clause 30.2</p>
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<b>Product certifications</b>	<p>CCC</p> <p>UL</p> <p>CB Scheme</p> <p>CSA</p> <p>CE</p> <p>UKCA</p> <p>Marine</p> <p>EAC</p>
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<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 conforming to IEC 60947-1 Annex Q category D 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) Vibrations contactor closed (4 Gn, 5...300 Hz) Shocks contactor closed (15 Gn for 11 ms) Shocks contactor open (10 Gn for 11 ms)
<b>Height</b>	122 mm
<b>Width</b>	55 mm
<b>Depth</b>	120 mm
<b>Net weight</b>	0.855 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>	6.3 cm
<b>Package 1 Width</b>	13.7 cm
<b>Package 1 Length</b>	15.3 cm
<b>Package 1 Weight</b>	933 g
<b>Unit Type of Package 2</b>	S02
<b>Number of Units in Package 2</b>	10
<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>	9.59 kg

## Contractual warranty

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

### Environmental footprint

Carbon footprint (kg.eq.CO2 per CR, Total Life cycle)	56
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Environmental Disclosure	<a href="#">Product Environmental Profile</a>
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## Use Better

### Materials and Substances

Packaging made with recycled cardboard	No
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Packaging without single use plastic	No
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<a href="#">EU RoHS Directive</a>	Compliant
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REACH Regulation	<a href="#">REACH Declaration</a>
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China RoHS Regulation	<a href="#">China RoHS declaration</a>
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PVC free	Yes
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## Use Again

### Repack and remanufacture

Circularity Profile	<a href="#">End of Life Information</a>
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WEEE



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

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Take-back

No

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