

# Product data sheet

Specifications



## Contacteur, TeSys Deca, 3P(3NO),AC-3/AC-3e/<=440V 50A, 110V AC 50/60Hz coil, screw clamp terminals

LC1D50F7

### Main

Range	TeSys
Range of product	TeSys Deca
Product or component type	Contacteur
Device short name	LC1D
Contacteur application	Resistive load Motor control
Utilisation category	AC-1 AC-4 AC-3 AC-3e AC-1
Poles description	3P
[U <sub>e</sub> ] rated operational voltage	Power circuit: <= 690 V AC 25...400 Hz
[I <sub>e</sub> ] rated operational current	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 50 A (at <60 °C) at <= 440 V AC AC-3 for power circuit
[U <sub>c</sub> ] control circuit voltage	110 V DC

### Complementary

Motor power kW	25 kW at 415 V AC 50 Hz (AC-3) 30 kW at 440 V AC 50 Hz (AC-3) 30 kW at 500 V AC 50 Hz (AC-3) 33 kW at 660...690 V AC 50 Hz (AC-3) 15 kW at 220...230 V AC 50 Hz (AC-3) 11 kW at 400 V AC 50 Hz (AC-4) 30 kW at 1000 V AC 50 Hz (AC-3) 22 kW at 380...400 V AC 50 Hz (AC-3e) 25 kW at 415 V AC 50 Hz (AC-3e) 30 kW at 440 V AC 50 Hz (AC-3e) 30 kW at 500 V AC 50 Hz (AC-3e) 33 kW at 660...690 V AC 50 Hz (AC-3e) 15 kW at 220...230 V AC 50 Hz (AC-3e) 30 kW at 1000 V AC 50 Hz (AC-3e) 25 kW at 415 V AC 50 Hz 22 kW at 380...400 V AC 50 Hz
Motor power hp	7.5 hp at 230/240 V AC 60 Hz for 1 phase motors 15 hp at 200/208 V AC 60 Hz for 3 phases motors 15 hp at 230/240 V AC 60 Hz for 3 phases motors 40 hp at 460/480 V AC 60 Hz for 3 phases motors 40 hp at 575/600 V AC 60 Hz for 3 phases motors 3 hp at 115 V AC 60 Hz for 1 phase motors
Compatibility code	LC1D
Pole contact composition	3 NO
Protective cover	With

<b>[I<sub>th</sub>] conventional free air thermal current</b>	80 A (at 60 °C) for power circuit 10 A (at 60 °C) for control circuit
<b>Irms rated making capacity</b>	140 A AC for control circuit conforming to IEC 60947-5-1 900 A at 440 V for power circuit conforming to IEC 60947 250 A DC for control circuit conforming to IEC 60947-5-1
<b>Rated breaking capacity</b>	900 A at 440 V for power circuit conforming to IEC 60947
<b>Associated fuse rating</b>	100 A gG at ≤ 690 V coordination type 1 for power circuit 100 A gG at ≤ 690 V coordination type 2 for power circuit conforming to IEC 60947-5-1 10 A gG for control circuit conforming to IEC 60947-5-1
<b>Power dissipation per pole</b>	9.6 W AC-1 3.7 W AC-3e 3.7 W AC-3
<b>[U<sub>i</sub>] rated insulation voltage</b>	Control circuit: 600 V UL certified Power circuit: 600 V CSA certified Power circuit: 600 V UL certified conforming to IEC 60947-1 Control circuit: 690 V conforming to IEC 60947-1 Power circuit: 690 V CSA certified conforming to IEC 60947-1 Control circuit: 600 V CSA certified
<b>Overvoltage category</b>	III
<b>[U<sub>imp</sub>] rated impulse withstand voltage</b>	8 kV conforming to IEC 60947
<b>Safety reliability level</b>	B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1
<b>Mechanical durability</b>	10000000 cycles
<b>Control circuit type</b>	DC standard
<b>Coil technology</b>	Built-in bidirectional peak limiting diode suppressor
<b>Control circuit voltage limits</b>	0.8...1.1 U <sub>c</sub> (-40...60 °C):operational AC 50 Hz 0.85...1.1 U <sub>c</sub> (-40...60 °C):operational AC 60 Hz 1...1.1 U <sub>c</sub> (60...70 °C):operational AC 50/60 Hz 0.75...1.25 U <sub>c</sub> (-40...60 °C):operational DC 0.1...0.3 U <sub>c</sub> (-40...70 °C):drop-out DC
<b>Inrush power in VA</b>	160 VA cos phi 0.75 (at 20 °C)
<b>Inrush power in W</b>	19 W (at 20 °C)
<b>Hold-in power consumption in VA</b>	15 VA 50 Hz cos phi 0.3 (at 20 °C)
<b>Hold-in power consumption in W</b>	7.4 W at 20 °C
<b>Operating time</b>	12...26 ms closing 50 ms closing 20 ms opening
<b>Time constant</b>	34 ms
<b>Maximum operating rate</b>	3600 cyc/h at 60 °C

<b>Connections - terminals</b>	Control circuit: screw clamp terminals 2 1...4 mm <sup>2</sup> - cable stiffness: rigid without 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...2.5 mm <sup>2</sup> - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 1...2.5 mm <sup>2</sup> - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 2.5...25 mm <sup>2</sup> - cable stiffness: rigid Power circuit: screw clamp terminals 2 2.5...16 mm <sup>2</sup> - cable stiffness: rigid without cable end Power circuit: screw clamp terminals 1 2.5...25 mm <sup>2</sup> - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 2 2.5...16 mm <sup>2</sup> - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 1 2.5...25 mm <sup>2</sup> - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 2.5...10 mm <sup>2</sup> - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 1...4 mm <sup>2</sup> - cable stiffness: rigid Control circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: rigid
<b>Tightening torque</b>	Control circuit: 1.7 N.m - on screw clamp terminal - with screwdriver Philips No 2 Power circuit: 5 N.m - on screw terminal - with screwdriver flat Ø 6 to Ø 8 mm Control circuit: 1.7 N.m - on screw clamp terminal - with screwdriver pozidriv No 2 Control circuit: 1.7 N.m - on screw clamp terminal - with screwdriver flat Ø 6 mm
<b>Auxiliary contact composition</b>	1 NO + 1 NC
<b>Auxiliary contacts type</b>	type mirror contact 1 NC conforming to IEC 60947-4-1 type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1
<b>Minimum switching voltage</b>	17 V for control circuit
<b>Minimum switching current</b>	5 mA for control circuit
<b>Insulation resistance</b>	> 10 MOhm for control circuit
<b>Non-overlap time</b>	1.5 ms on energisation between NC and NO contacts 1.5 ms on de-energisation between NC and NO contacts
<b>Mounting support</b>	Rail Rail

## Environment

<b>Standards</b>	CSA C22.2 No 14 IEC 60947-4-1 IEC 60947-5-1 EN 60947-5-1 EN 60947-4-1
<b>Product certifications</b>	GL LROS (Lloyds register of shipping) RINA CCC BV DNV GOST CSA UKCA GL
<b>IP degree of protection</b>	IP2X conforming to VDE 0106 IP2X conforming to IEC 60529
<b>Climatic withstand</b>	conforming to IACS E10 exposure to damp heat
<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>	Shocks contactor closed (15 Gn for 11 ms) Vibrations contactor opened (2 Gn, 5...300 Hz) Vibrations contactor closed (4 Gn, 5...300 Hz) Shocks contactor opened (10 Gn for 11 ms)
<b>Height</b>	127 mm
<b>Width</b>	85 mm
<b>Depth</b>	176 mm
<b>Net weight</b>	2.185 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>	9.5 cm
<b>Package 1 Width</b>	13.2 cm
<b>Package 1 Length</b>	14.0 cm
<b>Package 1 Weight</b>	1.448 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>	7.538 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

Total lifecycle Carbon footprint	81
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## Use Better

### Materials and Substances

Packaging made with recycled cardboard	Yes
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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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California proposition 65	<b>WARNING:</b> This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
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PVC free	Yes
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## Use Again

### Repack and remanufacture

End of life manual availability	No need of specific recycling operations
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Take-back	No
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WEEE Label	 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
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Technical Illustration

Assembly's dimensions

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