

# Product data sheet

Specifications



IEC contactor, TeSys D, nonreversing, 50A, 40HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, 120VAC 50/60Hz coil, open

LC1D50G7

**Product availability:** Stock - Normally stocked in distribution facility

## Main

Range	TeSys
Range of Product	TeSys Deca
Product or Component Type	Contactor
Device short name	LC1D
Contactor application	Motor control Resistive load
Utilisation category	AC-3 AC-2 AC-4 AC-1 AC-3e
Poles description	3P
[Ue] rated operational voltage	Power circuit <= 690 V AC 25...400 Hz
[Ie] rated operational current	80 A (at <140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit 50 A (at <140 °F (60 °C)) at <= 440 V AC AC-3 for power circuit 50 A (at <140 °F (60 °C)) at <= 440 V AC AC-3e for power circuit
[Uc] control circuit voltage	120 V AC 50/60 Hz

## Complementary

Motor power kW	22 kW at 380...400 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) 30 kW at 500 V AC 50/60 Hz (AC-3) 33 kW at 660...690 V AC 50/60 Hz (AC-3) 15 kW at 220...230 V AC 50/60 Hz (AC-3) 11 kW at 400 V AC 50/60 Hz (AC-4)
Maximum Horse Power Rating	3 hp at 115 V AC 60 Hz for 1 phase motors conforming to CSA 3 hp at 115 V AC 60 Hz for 1 phase motors conforming to UL 15 hp at 200/208 V AC 60 Hz for 3 phase motors conforming to CSA 15 hp at 200/208 V AC 60 Hz for 3 phase motors conforming to UL 15 hp at 230/240 V AC 60 Hz for 3 phase motors conforming to CSA 15 hp at 230/240 V AC 60 Hz for 3 phase motors conforming to UL 40 hp at 460/480 V AC 60 Hz for 3 phase motors conforming to CSA 40 hp at 460/480 V AC 60 Hz for 3 phase motors conforming to UL 40 hp at 575/600 V AC 60 Hz for 3 phase motors conforming to CSA 40 hp at 575/600 V AC 60 Hz for 3 phase motors conforming to UL 7.5 hp at 230/240 V AC 60 Hz for 1 phase motors conforming to CSA 7.5 hp at 230/240 V AC 60 Hz for 1 phase motors conforming to UL
Compatibility code	LC1D
Pole contact composition	3 NO
Protective cover	With

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

<b>[I<sub>th</sub>] conventional free air thermal current</b>	10 A (at 140 °F (60 °C)) for control circuit 80 A (at 140 °F (60 °C)) for power circuit
<b>I<sub>rms</sub> 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
<b>Rated breaking capacity</b>	900 A at 440 V for power circuit conforming to IEC 60947
<b>Associated fuse rating</b>	10 A gG for control 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 - I <sub>th</sub> 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>[U<sub>i</sub>] rated insulation voltage</b>	Control circuit 600 V CSA Control circuit 600 V UL Power circuit 600 V CSA Power circuit 600 V UL Control circuit 690 V IEC 60947-1 Power circuit 690 V IEC 60947-1
<b>Overvoltage category</b>	III
<b>[U<sub>imp</sub>] rated impulse withstand voltage</b>	6 kV IEC 60947
<b>Safety reliability level</b>	B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1
<b>Mechanical durability</b>	6000000 cycles
<b>Control circuit type</b>	AC 50/60 Hz
<b>Coil technology</b>	Without built-in bidirectional peak limiting diode suppressor
<b>Control circuit voltage limits</b>	0.3...0.6 U <sub>c</sub> (140 °F (60 °C)):drop-out AC 50/60 Hz 0.8...1.1 U <sub>c</sub> (140 °F (60 °C)):operational AC 50 Hz 0.85...1.1 U <sub>c</sub> (140 °F (60 °C)):operational AC 60 Hz
<b>Inrush power in VA</b>	140 VA cos phi 0.75 (at 68 °F (20 °C)) 160 VA cos phi 0.75 (at 68 °F (20 °C))
<b>Hold-in power consumption in VA</b>	13 VA 50 Hz cos phi 0.3 (at 68 °F (20 °C)) 15 VA 60 Hz cos phi 0.3 (at 68 °F (20 °C))
<b>Heat dissipation</b>	4...5 W at 50/60 Hz for control circuit
<b>Operating time</b>	12...26 ms closing 4...19 ms opening
<b>Maximum operating rate</b>	3600 cyc/h at 60 °C
<b>Connections - terminals</b>	Control circuit: screw clamp terminal 1 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: solid without cable end Control circuit: screw clamp terminal 2 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: solid without cable end Control circuit: screw clamp terminal 1 0.002...0.004 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) - cable stiffness: flexible without cable end Control circuit: screw clamp terminal 2 0.002...0.004 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) - cable stiffness: flexible without cable end Control circuit: screw clamp terminal 1 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: flexible with cable end Control circuit: screw clamp terminal 2 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> ) - cable stiffness: flexible with cable end Power circuit: connector 1 0.004...0.05 in <sup>2</sup> (2.5...35 mm <sup>2</sup> ) - cable stiffness: solid with cable end Power circuit: connector 2 0.004...0.05 in <sup>2</sup> (2.5...35 mm <sup>2</sup> ) - cable stiffness: solid with cable end Power circuit: connector 1 0.004...0.05 in <sup>2</sup> (2.5...35 mm <sup>2</sup> ) - cable stiffness: flexible without cable end Power circuit: connector 2 0.004...0.05 in <sup>2</sup> (2.5...35 mm <sup>2</sup> ) - cable stiffness: flexible without cable end Power circuit: connector 1 0.004...0.04 in <sup>2</sup> (2.5...25 mm <sup>2</sup> ) - cable stiffness: flexible with cable end Power circuit: connector 1 0.004...0.05 in <sup>2</sup> (2.5...35 mm <sup>2</sup> ) - cable stiffness: flexible with cable end Power circuit: connector 2 0.004...0.05 in <sup>2</sup> (2.5...35 mm <sup>2</sup> ) - cable stiffness: flexible with cable end

<b>Tightening torque</b>	Control circuit 10.6 lbf.in (1.2 N.m) screw clamp terminal flat Ø 6 mm Control circuit 10.6 lbf.in (1.2 N.m) screw clamp terminal Philips No 2 Power circuit 44.3 lbf.in (5 N.m) screw clamp terminal flat Ø 6 mm Power circuit 44.3 lbf.in (5 N.m) screw clamp terminal flat Ø 8 mm Control circuit 10.6 lbf.in (1.2 N.m) screw clamp terminal pozidriv No 2
<b>Auxiliary contact composition</b>	1 NO + 1 NC
<b>Auxiliary contacts type</b>	Mirror contact 1 NC IEC 60947-4-1 Mechanically linked 1 NO + 1 NC 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 de-energisation between NC and NO contacts 1.5 ms on energisation between NC and NO contacts
<b>Mounting Support</b>	Plate Rail

## Environment

<b>Standards</b>	UL 508 EN 60947-4-1 EN 60947-5-1 IEC 60947-5-1 CSA C22.2 No 14 IEC 60947-4-1
<b>Product Certifications</b>	GOST LROS (pending) UL CCC RINA CSA BV GL DNV UKCA
<b>IP degree of protection</b>	IP2X IEC 60529 IP2X VDE 0106
<b>Climatic withstand</b>	IACS E10 exposure to damp heat
<b>Permissible ambient air temperature around the device</b>	23...140 °F (-5...60 °C) -40...158 °F (-40...70 °C) at Uc
<b>Operating altitude</b>	9842.52 ft (3000 m) without derating
<b>Fire resistance</b>	1562 °F (850 °C) IEC 60695-2-1
<b>Flame retardance</b>	V1 conforming to UL 94
<b>Mechanical robustness</b>	Shocks contactor opened 10 Gn for 11 ms Shocks contactor closed 15 Gn for 11 ms Vibrations contactor opened 2 Gn, 5...300 Hz Vibrations contactor closed 4 Gn, 5...300 Hz)
<b>Height</b>	4.8 in (122 mm)
<b>Width</b>	2.2 in (55 mm)
<b>Depth</b>	4.7 in (119 mm)
<b>Net Weight</b>	3.09 lb(US) (1.4 kg)

## Ordering and shipping details

<b>Category</b>	US10I1222357
<b>Discount Schedule</b>	0I12
<b>GTIN</b>	3389110421453

Returnability	Yes
Country of origin	CZ
<b>Packing Units</b>	
Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	5.51 in (14.000 cm)
Package 1 Width	5.20 in (13.200 cm)
Package 1 Length	3.74 in (9.500 cm)
Package weight(Lbs)	3.188 lb(US) (1.446 kg)
Unit Type of Package 2	S02
Number of Units in Package 2	5
Package 2 Height	5.91 in (15.000 cm)
Package 2 Width	11.81 in (30.000 cm)
Package 2 Length	15.75 in (40.000 cm)
Package 2 Weight	16.495 lb(US) (7.482 kg)
Unit Type of Package 3	P06
Number of Units in Package 3	80
Package 3 Height	29.53 in (75.000 cm)
Package 3 Width	23.62 in (60.000 cm)
Package 3 Length	31.50 in (80.000 cm)
Package 3 Weight	289.688 lb(US) (131.400 kg)

## Contractual warranty

Warranty	18 months
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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 CO2 eq, Total Life cycle)	62
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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	Yes
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Packaging without single use plastic	Yes
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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="#">www.P65Warnings.ca.gov</a>
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PVC free	Yes
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## Use Again

### Repack and remanufacture

Circularity Profile	No need of specific recycling operations
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Take-back	No
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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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## Technical Illustration

## Assembly's dimensions

