

# Product data sheet

Specifications



## TeSys Deca reversing contactor - 3 poles - AC-3 - 440 V 50 A - coil 115 V AC

LC2D50FE7

⚠ Discontinued on: Jul 12, 2021

⚠ End-of-service on: Aug 2, 2021

⚠ Discontinued

### Main

Range	TeSys
Product name	TeSys Deca
Product or component type	Reversing contactor
Device short name	LC2D
Contactor application	Resistive load Motor control
Utilisation category	AC-3 AC-1
Device presentation	Preassembled with reversing power busbar
Poles description	3P
power pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit <= 1000 V AC 25...400 Hz
[Ie] rated operational current	50 A (at <131 °F (55 °C)) at <= 440 V AC AC-3 for power circuit 80 A (at <104 °F (40 °C)) at <= 440 V AC AC-1 for power circuit
Motor power kW	15 kW at 220...230 V AC 50 Hz 22 kW at 380...400 V AC 50 Hz 30 kW at 500 V AC 50 Hz 33 kW at 660...690 V AC 50 Hz 25 kW at 415 V AC 50 Hz 30 kW at 440 V AC 50 Hz
Motor power hp	3 hp at 115 V AC 60 Hz for 1 phase motors 15 hp at 200/208 V AC 60 Hz for 3 phases motors 40 hp at 575...600 V AC 60 Hz for 3 phases motors 40 hp at 460...480 V AC 60 Hz for 3 phases motors 15 hp at 220...240 V AC 60 Hz for 3 phases motors 7.5 hp at 230...240 V AC 60 Hz for 1 phase motors
Control circuit type	AC 50/60 Hz
[Uc] control circuit voltage	115 V AC 50/60 Hz
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	8 kV IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	10 A (at 140 °F (60 °C)) for signalling 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 60947-4
Rated breaking capacity	400 A at 690 V for power circuit conforming to IEC 60947 900 A at 220/415/440 V for power circuit conforming to IEC 60947 900 A at 500 V for power circuit conforming to IEC 60947

<b>[Icw] rated short-time withstand current</b>	100 A - 1 s for signalling circuit 120 A - 500 ms for signalling circuit 140 A - 100 ms for signalling circuit 400 A 104 °F (40 °C) - 10 s for power circuit 810 A 104 °F (40 °C) - 1 s for power circuit 84 A 104 °F (40 °C) - 10 min for power circuit 208 A 104 °F (40 °C) - 1 min for power circuit
<b>Associated fuse rating</b>	10 A gG for signalling circuit conforming to IEC 60947-5-1
<b>Average impedance</b>	1.5 mOhm - lth 60 A 50 Hz for power circuit
<b>[Ui] rated insulation voltage</b>	Power circuit 600 V CSA Power circuit 600 V UL Signalling circuit 690 V IEC 60947-1 Signalling circuit 600 V CSA Signalling circuit 600 V UL Power circuit 1000 V IEC 60947-4-1
<b>Electrical durability</b>	1.4 Mcycles 80 A AC-1 <= 440 V 1.5 Mcycles 50 A AC-3 <= 440 V
<b>Power dissipation per pole</b>	3.7 W AC-3 9.6 W AC-1
<b>Front cover</b>	With
<b>Interlocking type</b>	Mechanical
<b>Mounting support</b>	Rail Plate
<b>Standards</b>	CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508
<b>Product certifications</b>	BV CCC CSA DNV GL RINA UL EAC
<b>Connections - terminals</b>	Control circuit screw clamp terminals 1 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible without cable end Control circuit screw clamp terminals 2 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible without cable end Control circuit screw clamp terminals 1 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible with cable end Control circuit screw clamp terminals 2 0.002...0.004 in <sup>2</sup> (1...2.5 mm <sup>2</sup> )flexible with cable end Control circuit screw clamp terminals 1 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid without cable end Control circuit screw clamp terminals 2 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid without cable end Power circuit screw clamp terminals 1 0.004...0.04 in <sup>2</sup> (2.5...25 mm <sup>2</sup> )flexible without cable end Power circuit screw clamp terminals 2 0.004...0.02 in <sup>2</sup> (2.5...16 mm <sup>2</sup> )flexible without cable end Power circuit screw clamp terminals 1 0.004...0.04 in <sup>2</sup> (2.5...25 mm <sup>2</sup> )flexible with cable end Power circuit screw clamp terminals 2 0.004...0.02 in <sup>2</sup> (2.5...10 mm <sup>2</sup> )flexible with cable end Power circuit screw clamp terminals 1 0.004...0.04 in <sup>2</sup> (2.5...25 mm <sup>2</sup> )solid without cable end Power circuit screw clamp terminals 2 0.004...0.02 in <sup>2</sup> (2.5...16 mm <sup>2</sup> )solid without cable end
<b>Tightening torque</b>	Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2 Power circuit 53.1 lbf.in (6 N.m) screw clamp terminals flat Ø 8 mm Power circuit 53.1 lbf.in (6 N.m) screw clamp terminals
<b>Operating time</b>	20...26 ms closing 8...12 ms opening

<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>	16000000 cycles
<b>Maximum operating rate</b>	3600 cyc/h 131 °F (55 °C)

## Complementary

<b>Coil technology</b>	Built-in bidirectional peak limiting diode suppressor
<b>Control circuit voltage limits</b>	0.3...0.6 Uc (-40...158 °F (-40...70 °C)):drop-out AC 50/60 Hz 0.8...1.1 Uc (-40...131 °F (-40...55 °C)):operational AC 50 Hz 0.85...1.1 Uc (-40...131 °F (-40...55 °C)):operational AC 60 Hz 1...1.1 Uc (131...158 °F (55...70 °C)):operational AC 50/60 Hz
<b>Inrush power in VA</b>	200 VA 50 Hz 0.75 68 °F (20 °C) 220 VA 60 Hz 0.75 68 °F (20 °C)
<b>Heat dissipation</b>	6...10 W 50/60 Hz
<b>Auxiliary contacts type</b>	Mechanically linked 1 NO + 1 NC IEC 60947-5-1 Mirror contact 1 NC IEC 60947-4-1
<b>Signalling circuit frequency</b>	25...400 Hz
<b>Minimum switching current</b>	5 mA for signalling circuit
<b>Minimum switching voltage</b>	17 V 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>Insulation resistance</b>	> 10 MOhm for signalling circuit

## Environment

<b>IP degree of protection</b>	IP20 front face IEC 60529
<b>Climatic withstand</b>	IACS E10
<b>Protective treatment</b>	TH IEC 60068-2-30
<b>Pollution degree</b>	3
<b>Ambient air temperature for operation</b>	-40...140 °F (-40...60 °C) 140...158 °F (60...70 °C) with derating
<b>Ambient air temperature for storage</b>	-76...176 °F (-60...80 °C)
<b>Operating altitude</b>	0...3000 m
<b>Fire resistance</b>	1760 °F (960 °C) IEC 60695-2-1
<b>Flame retardance</b>	V1 UL 94
<b>Mechanical robustness</b>	Vibrations contactor open2 Gn, 5...300 Hz Shocks contactor closed10 Gn for 11 ms Shocks contactor open8 Gn for 11 ms Vibrations contactor closed3 Gn, 5...300 Hz
<b>Height</b>	5 in (127 mm)
<b>Width</b>	6.5 in (165 mm)
<b>Depth</b>	5.6 in (142 mm)
<b>Net weight</b>	5.3 lb(US) (2.4 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>	7.3 in (18.5 cm)

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<b>Package 1 Width</b>	7.5 in (19 cm)
<b>Package 1 Length</b>	10.04 in (25.5 cm)
<b>Package 1 Weight</b>	7.324 lb(US) (3.322 kg)

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## **Contractual warranty**

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<b>Warranty (in months)</b>	18
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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

[Environmental Disclosure](#)

[Product Environmental Profile](#)

## Use Better



### Materials and Substances

[EU RoHS Directive](#)

[Compliant](#)

[PVC free](#)

[Yes](#)

## Use Longer



### Lifetime extension

[Repair](#)

[No](#)

## Use Again



### Repack and remanufacture

[Circularity Profile](#)

[End of Life Information](#)

[WEEE Label](#)



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