

# Product data sheet

Specifications



## Contactors, TeSys Deca, 3P(3NO), AC-3/3e, <=440V, 18A, 110V AC 50/60Hz coil, snap-in terminals

LC1D18AF7

**Product availability: Non-Stock - Not normally stocked in distribution facility**

## Main

Range of Product	TeSys Deca
Product or Component Type	Contactors
Device short name	LC1D
Contactors application	Motor control Resistive load
Utilisation category	AC-1 AC-3 AC-3e AC-4
Poles description	3P
[Ue] rated operational voltage	Power circuit <= 690 V AC 25...400 Hz Power circuit <= 300 V DC
[Ie] rated operational current	18 A (at <140 °F (60 °C)) at <= 440 V AC-3 for power circuit 18 A (at <140 °F (60 °C)) at <= 440 V AC-3e for power circuit 32 A (at <140 °F (60 °C)) at <= 440 V AC-1 for power circuit
[Uc] control circuit voltage	110 V AC 50/60 Hz

## Complementary

Motor power kW	4 kW at 220...230 V AC 50/60 Hz (AC-3) 7.5 kW at 380...400 V AC 50/60 Hz (AC-3) 9 kW at 415...440 V AC 50/60 Hz (AC-3) 10 kW at 500 V AC 50/60 Hz (AC-3) 10 kW at 660...690 V AC 50/60 Hz (AC-3) 4 kW at 400 V AC 50/60 Hz (AC-4) 4 kW at 220...230 V AC 50/60 Hz (AC-3e) 7.5 kW at 380...400 V AC 50/60 Hz (AC-3e) 9 kW at 415...440 V AC 50/60 Hz (AC-3e) 10 kW at 500 V AC 50/60 Hz (AC-3e) 10 kW at 660...690 V AC 50/60 Hz (AC-3e)
Compatibility code	LC1D
Pole contact composition	3 NO
Protective cover	With
[Ith] conventional free air thermal current	32 A (at 140 °F (60 °C)) for power circuit 10 A (at 140 °F (60 °C)) for signalling circuit
Irms rated making capacity	300 A at 440 V for power circuit conforming to IEC 60947 140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1
Rated breaking capacity	300 A at 440 V for power circuit conforming to IEC 60947

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

<b>[Icw] rated short-time withstand current</b>	40 A 104 °F (40 °C) - 10 min for power circuit 84 A 104 °F (40 °C) - 1 min for power circuit 145 A 104 °F (40 °C) - 10 s for power circuit 240 A 104 °F (40 °C) - 1 s 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 50 A gG at <= 690 V coordination type 1 for power circuit 35 A gG at <= 690 V coordination type 2 for power circuit
<b>Average impedance</b>	2.5 mOhm - lth 32 A 50 Hz for power circuit
<b>Power dissipation per pole</b>	0.8 W AC-3 0.8 W AC-3e 2.5 W AC-1
<b>[Ui] rated insulation voltage</b>	Power circuit 690 V IEC 60947-4-1 Signalling circuit 690 V IEC 60947-1
<b>Overvoltage category</b>	III
<b>Pollution degree</b>	3
<b>[Uimp] 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>	15 Mcycles
<b>Electrical durability</b>	1.65 Mcycles 18 A AC-3 <= 440 V 1 Mcycles 32 A AC-1 <= 440 V 1.65 Mcycles 18 A AC-3e <= 440 V
<b>Control circuit type</b>	AC 50/60 Hz standard
<b>Coil technology</b>	Without built-in suppressor module
<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...140 °F (-40...60 °C)):operational AC 50 Hz 0.85...1.1 Uc (-40...140 °F (-40...60 °C)):operational AC 60 Hz 1...1.1 Uc (140...158 °F (60...70 °C)):operational AC 50/60 Hz
<b>Inrush power in VA</b>	70 VA 60 Hz cos phi 0.75 (at 68 °F (20 °C)) 70 VA 50 Hz cos phi 0.75 (at 68 °F (20 °C))
<b>Hold-in power consumption in VA</b>	7.5 VA 60 Hz cos phi 0.3 (at 68 °F (20 °C)) 7 VA 50 Hz cos phi 0.3 (at 68 °F (20 °C))
<b>Heat dissipation</b>	2...3 W at 50/60 Hz
<b>Operating time</b>	12...22 ms closing 4...19 ms opening
<b>Maximum operating rate</b>	3600 cyc/h at 60 °C

<b>Connections - terminals</b>	Control circuit: snap-in terminal 1 0.0008...0.006 in <sup>2</sup> (0.5...4 mm <sup>2</sup> ) - cable stiffness: flexible without cable end Control circuit: snap-in terminal 2 0.0008...0.006 in <sup>2</sup> (0.5...4 mm <sup>2</sup> ) - cable stiffness: flexible without cable end Control circuit: snap-in terminal 1 0.0008...0.004 in <sup>2</sup> (0.5...2.5 mm <sup>2</sup> ) - cable stiffness: flexible with cable end Control circuit: snap-in terminal 2 0.0008...0.004 in <sup>2</sup> (0.5...2.5 mm <sup>2</sup> ) - cable stiffness: flexible with cable end Control circuit: snap-in terminal 1 0.0008...0.004 in <sup>2</sup> (0.5...2.5 mm <sup>2</sup> ) - cable stiffness: solid without cable end Control circuit: snap-in terminal 2 0.0008...0.004 in <sup>2</sup> (0.5...2.5 mm <sup>2</sup> ) - cable stiffness: solid without cable end Power circuit: snap-in terminal 1 0.001...0.009 in <sup>2</sup> (0.75...6 mm <sup>2</sup> ) - cable stiffness: flexible without cable end Power circuit: snap-in terminal 2 0.001...0.009 in <sup>2</sup> (0.75...6 mm <sup>2</sup> ) - cable stiffness: flexible without cable end Power circuit: snap-in terminal 1 0.001...0.006 in <sup>2</sup> (0.75...4 mm <sup>2</sup> ) - cable stiffness: flexible with cable end Power circuit: snap-in terminal 2 0.001...0.006 in <sup>2</sup> (0.75...4 mm <sup>2</sup> ) - cable stiffness: flexible with cable end Power circuit: snap-in terminal 1 0.001...0.006 in <sup>2</sup> (0.75...4 mm <sup>2</sup> ) - cable stiffness: solid without cable end Power circuit: snap-in terminal 2 0.001...0.006 in <sup>2</sup> (0.75...4 mm <sup>2</sup> ) - cable stiffness: solid without cable end
<b>Auxiliary contact composition</b>	1 NO + 1 NC
<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 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 IEC 60947-4-1 UL 60947-4-1 CSA C22.2 No 60947-4-1 IEC 60335-1:Clause 30.2 IEC 60335-2-40:Annex JJ UL 60335-2-40:Annex JJ
<b>Product Certifications</b>	CB Scheme CCC cULus CE UKCA
<b>IP degree of protection</b>	IP20 front face IEC 60529
<b>Protective treatment</b>	THIEC 60068-2-30
<b>Climatic withstand</b>	IACS E10 exposure to damp heat IEC 60947-1 Annex Q category D exposure to damp heat
<b>Permissible ambient air temperature around the device</b>	-40...140 °F (-40...60 °C) 140...158 °F (60...70 °C) with derating
<b>Operating altitude</b>	0...9842.52 ft (0...3000 m)
<b>Fire resistance</b>	1562 °F (850 °C) IEC 60695-2-1
<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)

Height	4.3 in (110 mm)
Width	1.8 in (45 mm)
Depth	3.6 in (92 mm)
Net Weight	16.01 oz (454 g)

## Ordering and shipping details

Category	US10I1222354
Discount Schedule	0I12
GTIN	3606487539520
Returnability	No
Country of origin	FR

## Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	2.205 in (5.600 cm)
Package 1 Width	3.976 in (10.100 cm)
Package 1 Length	4.606 in (11.700 cm)
Package weight(Lbs)	16.508 oz (468.000 g)
Unit Type of Package 2	S02
Number of Units in Package 2	15
Package 2 Height	5.906 in (15.000 cm)
Package 2 Width	11.811 in (30.000 cm)
Package 2 Length	15.748 in (40.000 cm)
Package 2 Weight	16.369 lb(US) (7.425 kg)
Unit Type of Package 3	P06
Number of Units in Package 3	240
Package 3 Height	29.528 in (75.000 cm)
Package 3 Width	23.622 in (60.000 cm)
Package 3 Length	31.496 in (80.000 cm)
Package 3 Weight	280.649 lb(US) (127.300 kg)

## Contractual warranty

Warranty (in months)	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

Total lifecycle Carbon footprint	21 kg CO2 eq.
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Carbon footprint of the manufacturing phase [A1 to A3]	2 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.2 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	18 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	0.8 kg CO2 eq.

### Use Better



### Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
<a href="#">EU RoHS Directive</a>	Compliant
REACH Regulation	<a href="#">REACH Declaration</a>
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>

### Use Longer



### Lifetime extension

Repair	No
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### Use Again



### Repack and remanufacture

Recyclability potential, in %	66
Circularity Profile	<a href="#">End of Life Information</a>
Take-back	No
WEEE Label	 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

Technical Illustration

Assembly's dimensions

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