

# Product datasheet

Specifications



Contactor, TeSys Deca, 3P(3NO), AC-3/3e,  $\leq 440\text{V}$ , 18A, 48V DC coil, snap-in terminals, snap-in terminals

LC1D18AED

## Main

Range of product	TeSys Deca
Product or component type	Contactor
Device short name	LC1D
Contactor application	Motor control Resistive load
Utilisation category	AC-1 AC-3 AC-3e AC-4
Poles description	3P
[Ue] rated operational voltage	Power circuit: $\leq 690\text{ V AC } 25\dots 400\text{ Hz}$ Power circuit: $\leq 300\text{ V DC}$
[Ie] rated operational current	18 A (at $\leq 60\text{ }^\circ\text{C}$ ) at $\leq 440\text{ V AC-3}$ for power circuit 18 A (at $\leq 60\text{ }^\circ\text{C}$ ) at $\leq 440\text{ V AC-3e}$ for power circuit 32 A (at $\leq 60\text{ }^\circ\text{C}$ ) at $\leq 440\text{ V AC-1}$ for power circuit
[Uc] control circuit voltage	48 V DC

## 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 $60\text{ }^\circ\text{C}$ ) for power circuit 10 A (at $60\text{ }^\circ\text{C}$ ) 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

<b>[Icw] rated short-time withstand current</b>	40 A 40 °C - 10 min for power circuit 84 A 40 °C - 1 min for power circuit 145 A 40 °C - 10 s for power circuit 240 A 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 - Ith 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 conforming to IEC 60947-4-1 Signalling circuit: 690 V conforming to IEC 60947-1
<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>	30 Mcycles
<b>Electrical durability</b>	1.65 Mcycles 18 A AC-3 at Ue <= 440 V 1 Mcycles 32 A AC-1 at Ue <= 440 V 1.65 Mcycles 18 A AC-3e at Ue <= 440 V
<b>Control circuit type</b>	DC standard
<b>Coil technology</b>	Without built-in bidirectional peak limiting diode suppressor
<b>Control circuit voltage limits</b>	0.1...0.25 Uc (-40...70 °C):drop-out DC 50/60 Hz 0.7...1.25 Uc (-40...60 °C):operational DC 50 Hz 1...1.25 Uc (60...70 °C):operational DC 60 Hz
<b>Inrush power in W</b>	5.4 W (at 20 °C)
<b>Hold-in power consumption in W</b>	5.4 W at 20 °C
<b>Operating time</b>	63 ±15 % ms closing 20 ±20 % ms opening
<b>Time constant</b>	28 ms
<b>Maximum operating rate</b>	3600 cyc/h at 60 °C
<b>Connections - terminals</b>	Control circuit: snap-in terminal 1 0.5...4 mm <sup>2</sup> - cable stiffness: flexible without cable end Control circuit: snap-in terminal 2 0.5...4 mm <sup>2</sup> - cable stiffness: flexible without cable end Control circuit: snap-in terminal 1 0.5...2.5 mm <sup>2</sup> - cable stiffness: flexible with cable end Control circuit: snap-in terminal 2 0.5...2.5 mm <sup>2</sup> - cable stiffness: flexible with cable end Control circuit: snap-in terminal 1 0.5...2.5 mm <sup>2</sup> - cable stiffness: solid without cable end Control circuit: snap-in terminal 2 0.5...2.5 mm <sup>2</sup> - cable stiffness: solid without cable end Power circuit: snap-in terminal 1 0.75...6 mm <sup>2</sup> - cable stiffness: flexible without cable end Power circuit: snap-in terminal 2 0.75...6 mm <sup>2</sup> - cable stiffness: flexible without cable end Power circuit: snap-in terminal 1 0.75...4 mm <sup>2</sup> - cable stiffness: flexible with cable end Power circuit: snap-in terminal 2 0.75...4 mm <sup>2</sup> - cable stiffness: flexible with cable end Power circuit: snap-in terminal 1 0.75...4 mm <sup>2</sup> - cable stiffness: solid without cable end Power circuit: snap-in terminal 2 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>	type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1 type mirror contact 1 NC conforming to 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 EU-RO-MR by DNV
<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>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>	110 mm
<b>Width</b>	45 mm
<b>Depth</b>	101 mm
<b>Product weight</b>	624 g

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	5 cm
<b>Package 1 Width</b>	10.5 cm
<b>Package 1 Length</b>	11.5 cm
<b>Package 1 Weight</b>	644 g

<b>Unit Type of Package 2</b>	S02
<b>Number of Units in Package 2</b>	15
<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>	9.975 kg
<b>Unit Type of Package 3</b>	P06
<b>Number of Units in Package 3</b>	240
<b>Package 3 Height</b>	75 cm
<b>Package 3 Width</b>	60 cm
<b>Package 3 Length</b>	80 cm
<b>Package 3 Weight</b>	168.1 kg

## **Contractual warranty**

<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

Total lifecycle Carbon footprint	4 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	3 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.1 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	0 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	1 kg CO2 eq.
Environmental Disclosure	<a href="#">Product Environmental Profile</a>

## Use Better



### Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
SCIP Number	50ae7612-fd2e-41e4-a369-50d0dea6e592
EU RoHS Directive	<a href="#">Compliant By Exemption</a>
REACH Regulation	<a href="#">Reference contains Substances of Very High Concern above the threshold</a>

## Use Longer




### Lifetime extension

Repair	No
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## Use Again



### Repack and remanufacture

Recyclability potential, in %	75
End of life manual availability	<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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