

# Product datasheet

Specifications



## TeSys D contactor - 3P(3 NO) - AC-3 - $\leq 440$ V 80 A - 110 V AC 50 Hz coil

Local distributor code:

381821021

LC1D80F5

EAN Code: 3389110440720

### Main

Range	TeSys
Range of product	TeSys Deca
Product or component type	Contactors
Device short name	LC1D
Contactors application	Resistive load Motor control
Utilisation category	AC-3 AC-3e AC-4 AC-1
Poles description	3P
[Ue] rated operational voltage	Power circuit: $\leq 300$ V DC 25...400 Hz Power circuit: $\leq 690$ V AC
[Ie] rated operational current	125 A (at $\leq 60$ °C) at $\leq 1000$ V AC AC-1 for power circuit 80 A (at $\leq 60$ °C) at $\leq 440$ V AC AC-3 for power circuit 80 A (at $\leq 60$ °C) at $\leq 440$ V AC AC-3e for power circuit
[Uc] control circuit voltage	110 V AC 50 Hz

### Complementary

Motor power kW	22 kW at 220...230 V AC 50/60 Hz (AC-3) 37 kW at 380...400 V AC 50/60 Hz (AC-3) 45 kW at 415...440 V AC 50/60 Hz (AC-3) 55 kW at 500 V AC 50/60 Hz (AC-3) 45 kW at 660...690 V AC 50/60 Hz (AC-3) 15 kW at 400 V AC 50/60 Hz (AC-4) 22 kW at 220...230 V AC 50/60 Hz (AC-3e) 37 kW at 380...400 V AC 50/60 Hz (AC-3e) 45 kW at 415...440 V AC 50/60 Hz (AC-3e) 55 kW at 500 V AC 50/60 Hz (AC-3e) 45 kW at 660...690 V AC 50/60 Hz (AC-3e)
Motor power hp	7.5 hp at 120 V AC 50/60 Hz for 1 phase motors 15 hp at 230/240 V AC 50/60 Hz for 1 phase motors 30 hp at 200/208 V AC 50/60 Hz for 3 phases motors 30 hp at 230/240 V AC 50/60 Hz for 3 phases motors 60 hp at 460/480 V AC 50/60 Hz for 3 phases motors 60 hp at 575/600 V AC 50/60 Hz for 3 phases motors
Compatibility code	LC1D
Pole contact composition	3 NO
Protective cover	With
[Ith] conventional free air thermal current	10 A (at 60 °C) for signalling circuit 125 A (at 60 °C) for power 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 1100 A at 440 V for power circuit conforming to IEC 60947

<b>Rated breaking capacity</b>	1100 A at 440 V for power circuit conforming to IEC 60947
<b>[Icw] rated short-time withstand current</b>	640 A 40 °C - 10 s for power circuit 990 A 40 °C - 1 s for power circuit 135 A 40 °C - 10 min for power circuit 320 A 40 °C - 1 min 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 60947-5-1 200 A gG at <= 690 V coordination type 1 for power circuit 160 A gG at <= 690 V coordination type 2 for power circuit
<b>Average impedance</b>	0.8 mOhm - Ith 125 A 50 Hz for power circuit
<b>Power dissipation per pole</b>	5.1 W AC-3 12.5 W AC-1 5.1 W AC-3e
<b>[Ui] rated insulation voltage</b>	Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Power circuit: 1000 V conforming to IEC 60947-4-1 Signalling circuit: 690 V conforming to IEC 60947-1 Signalling circuit: 600 V CSA certified Signalling circuit: 600 V UL certified
<b>Overvoltage category</b>	III
<b>Pollution degree</b>	3
<b>[Uimp] rated impulse withstand voltage</b>	8 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>	10 Mcycles
<b>Electrical durability</b>	0.8 Mcycles 125 A AC-1 at Ue <= 440 V 1.5 Mcycles 80 A AC-3 at Ue <= 440 V 1.5 Mcycles 80 A AC-3e at Ue <= 440 V
<b>Control circuit type</b>	AC at 50 Hz
<b>Coil technology</b>	Without built-in suppressor module
<b>Control circuit voltage limits</b>	0.3...0.6 Uc (-40...70 °C):drop-out AC 50 Hz 0.85...1.1 Uc (-40...55 °C):operational AC 50 Hz 1...1.1 Uc (55...70 °C):operational AC 50 Hz
<b>Inrush power in VA</b>	200 VA 50 Hz cos phi 0.75 (at 20 °C)
<b>Hold-in power consumption in VA</b>	20 VA 50 Hz cos phi 0.3 (at 20 °C)
<b>Heat dissipation</b>	6...10 W at 50 Hz
<b>Operating time</b>	20...35 ms closing 6...20 ms opening
<b>Maximum operating rate</b>	3600 cyc/h at 60 °C
<b>Connections - terminals</b>	Control circuit: screw clamp terminals 2 1...2.5 mm <sup>2</sup> - cable stiffness: flexible with 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 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...4 mm <sup>2</sup> - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 1...4 mm <sup>2</sup> - cable stiffness: solid without cable end Power circuit: connector 1 4...50 mm <sup>2</sup> - cable stiffness: flexible without cable end Power circuit: connector 2 4...25 mm <sup>2</sup> - cable stiffness: flexible without cable end Power circuit: connector 1 4...50 mm <sup>2</sup> - cable stiffness: flexible with cable end Power circuit: connector 2 4...16 mm <sup>2</sup> - cable stiffness: flexible with cable end Power circuit: connector 1 4...50 mm <sup>2</sup> - cable stiffness: solid without cable end Power circuit: connector 2 4...25 mm <sup>2</sup> - cable stiffness: solid without cable end

<b>Tightening torque</b>	Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver Philips No 2 Power circuit: 12 N.m - on connector - with screwdriver flat Ø 6 to Ø 8 mm Power circuit: 12 N.m - on connector hexagonal screw head 4 mm Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver pozidriv No 2
<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 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 CSA C22.2 No 14 UL 60947-4-1 IEC 60335-2-40:Annex JJ UL 60335-2-40:Annex JJ IEC 60335-1:Clause 30.2
<b>Product certifications</b>	CCC UL CB Scheme CSA CE UKCA Marine EAC
<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
<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>Flame retardance</b>	V1 conforming to UL 94
<b>Mechanical robustness</b>	Vibrations contactor open (2 Gn, 5...300 Hz) Shocks contactor open (8 Gn for 11 ms) Vibrations contactor closed (3 Gn, 5...300 Hz) Shocks contactor closed (10 Gn for 11 ms)
<b>Height</b>	127 mm
<b>Width</b>	85 mm
<b>Depth</b>	130 mm
<b>Net weight</b>	1.59 kg

## Packing Units

<b>Unit Type of Package 1</b>	PCE
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<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	13.600 cm
<b>Package 1 Width</b>	13.800 cm
<b>Package 1 Length</b>	10.000 cm
<b>Package 1 Weight</b>	1.552 kg
<b>Unit Type of Package 2</b>	S02
<b>Number of Units in Package 2</b>	5
<b>Package 2 Height</b>	15.000 cm
<b>Package 2 Width</b>	30.000 cm
<b>Package 2 Length</b>	40.000 cm
<b>Package 2 Weight</b>	8.028 kg

## Logistical informations

<b>Country of origin</b>	CZ
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## Contractual warranty

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



## 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 **97**

Environmental Disclosure [Product Environmental Profile](#)

### Use Better

#### Materials and Substances

Packaging made with recycled cardboard **Yes**

Packaging without single use plastic **Yes**

[EU RoHS Directive](#) **Compliant**

REACH Regulation [REACH Declaration](#)

PVC free **Yes**

### Use Again

#### Repack and remanufacture

End of life manual availability **No need of specific recycling operations**

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**

Offer Marketing Illustration

Product benefits / Features

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## TeSys Deca Contactors



The image shows a stack of three TeSys Deca contactors. The top unit is labeled 'LC1D80' and 'TeSys Schneider Electric'. The middle unit is labeled 'TeSys Schneider Electric'. The bottom unit is labeled 'TeSys Schneider Electric'. The contactors are black with silver terminals and are mounted on a green background.

**Reliable**  
Multi-standard solutions, high reliability, long mechanical and electrical durability for different sizes, and the most complete accessories.

**Energy efficiency**  
These electronic-coil contactors require up to 80 % less energy than electro-mechanical contactors.

**Universal**  
Multi standards certified (IEC, UL, CSA, CCC, EAC, Marine), Green Premium compliant (RoHS/REACH).

Technical Illustration

Assembly's dimensions

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