

# Product datasheet

Specifications



## TeSys D contactor - 3P - <= 440 V - 50 A AC-3 - 24 V DC coil

Local distributor code:  
407811805 LC1D50ABBE

EAN Code: 3606480987823

### Main

Range of product	TeSys Deca Advanced
Product or component type	Contacteur
Device short name	LC1D
Contacteur application	Resistive load Motor control
Utilisation category	AC-1 AC-3 AC-3e
Poles description	3P
[Ue] rated operational voltage	Power circuit: <= 690 V AC 25...400 Hz
[Ie] rated operational current	80 A (at <60 °C) at <= 440 V AC-1 for power circuit 50 A (at <60 °C) at <= 440 V AC-3 for power circuit 50 A (at <60 °C) at <= 440 V AC-3e for power circuit
[Uc] control circuit voltage	24 V DC

### Complementary

Motor power kW	15 kW at 220...230 V AC 50 Hz (AC-3) 22 kW at 380...400 V AC 50 Hz (AC-3) 25 kW at 415 V AC 50 Hz (AC-3) 30 kW at 440 V AC 50 Hz (AC-3) 30 kW at 500 V AC 50 Hz (AC-3) 33 kW at 660...690 V AC 50 Hz (AC-3) 15 kW at 220...230 V AC 50 Hz (AC-3e) 22 kW at 380...400 V AC 50 Hz (AC-3e) 25 kW at 415 V AC 50 Hz (AC-3e) 30 kW at 440 V AC 50 Hz (AC-3e) 30 kW at 500 V AC 50 Hz (AC-3e) 33 kW at 660...690 V AC 50 Hz (AC-3e)
Motor power hp	3 hp at 115 V AC 60 Hz for 1 phase motors 7.5 hp at 230/240 V AC 60 Hz for 1 phase motors 15 hp at 200/208 V AC 60 Hz for 3 phases motors 15 hp at 230/240 V AC 60 Hz for 3 phases motors 40 hp at 460/480 V AC 60 Hz for 3 phases motors 40 hp at 575/600 V AC 60 Hz for 3 phases motors
Compatibility code	LC1D
Pole contact composition	3 NO
Protective cover	With
[Ith] conventional free air thermal current	80 A (at 60 °C) for power circuit 10 A (at 60 °C) for signalling circuit
Irms rated making capacity	900 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	900 A at 440 V for power circuit conforming to IEC 60947

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

<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 84 A 40 °C - 10 min for power circuit 208 A 40 °C - 1 min for power circuit 400 A 40 °C - 10 s for power circuit 810 A 40 °C - 1 s for power circuit
<b>Associated fuse rating</b>	10 A gG for signalling 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 - lth 80 A 50 Hz for power circuit
<b>Power dissipation per pole</b>	9.6 W AC-1 3.7 W AC-3 3.7 W AC-3e
<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>	10 Mcycles
<b>Electrical durability</b>	1.8 Mcycles 42 A AC-3 at Ue <= 440 V 0.5 Mcycles 80 A AC-1 at Ue <= 440 V 1.8 Mcycles 42 A AC-3e at Ue <= 440 V
<b>Control circuit type</b>	DC DC low consumption
<b>Coil technology</b>	Built-in bidirectional peak limiting
<b>Control circuit voltage limits</b>	<= 0.1 Uc (-40...70 °C):drop-out DC 0.8...1.2 Uc (-40...60 °C):operational DC 1...1.2 Uc (60...70 °C):operational DC
<b>Inrush power in W</b>	11.5 W (at 20 °C)
<b>Hold-in power consumption in W</b>	0.5 W at 20 °C
<b>Heat dissipation</b>	0.5 W
<b>Operating time</b>	55...65 ms closing 20...80 ms opening
<b>Maximum operating rate</b>	3600 cyc/h at 60 °C
<b>Connections - terminals</b>	Control circuit: screw clamp terminals 1 1...4 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 1...4 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 1...4 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 1...2.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1...4 mm² - cable stiffness: solid Control circuit: screw clamp terminals 2 1...4 mm² - cable stiffness: solid Power circuit: EverLink BTR screw connectors 1 1...35 mm² - cable stiffness: flexible without cable end Power circuit: EverLink BTR screw connectors 1 1...35 mm² - cable stiffness: flexible with cable end Power circuit: EverLink BTR screw connectors 1 1...35 mm² - cable stiffness: solid Power circuit: EverLink BTR screw connectors 2 1...25 mm² - cable stiffness: flexible without cable end Power circuit: EverLink BTR screw connectors 2 1...25 mm² - cable stiffness: flexible with cable end Power circuit: EverLink BTR screw connectors 2 1...25 mm² - cable stiffness: solid

Tightening torque	Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2 Power circuit: 8 N.m - on EverLink BTR screw connectors - cable 25...35 mm² hexagonal screw head 4 mm Power circuit: 5 N.m - on EverLink BTR screw connectors - cable 1...25 mm² hexagonal screw head 4 mm Power circuit: 5 N.m - with screwdriver pozidriv No 2 Control circuit: 1.7 N.m - with screwdriver pozidriv No 2
Auxiliary contact composition	1 NO + 1 NC
Auxiliary contacts type	type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1 type mirror contact 1 NC conforming to IEC 60947-4-1
Signalling circuit frequency	25...400 Hz
Minimum switching voltage	17 V for signalling circuit
Minimum switching current	5 mA for signalling circuit
Insulation resistance	> 10 MOhm for signalling circuit
Non-overlap time	1.5 ms on de-energisation between NC and NO contact 1.5 ms on energisation between NC and NO contact
Mounting support	Plate Rail

## Environment

Standards	EN/IEC 60947-4-1 EN/IEC 60947-5-1 UL 60947-4-1 CSA C22.2 No 60947-4-1 IEC 60335-1
Product certifications	CCC CSA EAC UL KC DNV-GL LROS (Lloyds register of shipping) UKCA
IP degree of protection	IP20 front face conforming to IEC 60529
Climatic withstand	conforming to IACS E10 exposure to damp heat conforming to IEC 60947-1 Annex Q category D exposure to damp heat
Permissible ambient air temperature around the device	-40...60 °C 60...70 °C with derating
Operating altitude	0...3000 m
Fire resistance	850 °C conforming to IEC 60695-2-1
Flame retardance	V1 conforming to UL 94
Mechanical robustness	Vibrations contactor open (2 Gn, 5...300 Hz) Vibrations contactor closed (4 Gn, 5...300 Hz) Shocks contactor open (10 Gn for 11 ms) Shocks contactor closed (15 Gn for 11 ms)
Height	122 mm
Width	55 mm
Depth	120 mm
Net weight	0.997 kg

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1

Package 1 Height	6.300 cm
Package 1 Width	13.700 cm
Package 1 Length	15.200 cm
Package 1 Weight	899.000 g
Unit Type of Package 2	S02
Number of Units in Package 2	10
Package 2 Height	15.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	9.272 kg
Unit Type of Package 3	P06
Number of Units in Package 3	160
Package 3 Height	75.000 cm
Package 3 Width	60.000 cm
Package 3 Length	80.000 cm
Package 3 Weight	158.352 kg

## Logistical informations

Country of origin	FR
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## 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	34
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
<a href="#">EU RoHS Directive</a>	Compliant with Exemptions
SCIP Number	9bb0b51e-73b5-4128-a86b-723dbbccfe86
REACH Regulation	<a href="#">REACH Declaration</a>
Halogen-free status	Halogen free plastic parts & cables product

## Use Longer




### Lifetime extension

Repair	No
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## Use Again



### Repack and remanufacture

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

Offer Marketing Illustration

Product benefits / Features

### TeSys Deca

Contactors



**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).



Offer Marketing Illustration

Product benefits / Features



Offer Marketing Illustration

Product benefits / Features



The image shows a TeSys Deca Contactor, model LC1D09, which is a black industrial-grade device. It features a green label with the 'TeSys' and 'Schneider Electric' logos. The device has multiple terminals on top and bottom, labeled with numbers and letters (e.g., 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100). The device is shown against a green circular background.

### TeSys Deca Contactors

#### Technical Benefits

- Deca green delivers a consistent low consumption range of contactors from 9 A to 80 A.
- Covers control voltage from 24 to 250 V, with same coils for AC and DC.
- Designed to meet the requirements of industrial and HVAC applications
- With IEC60335-1 compliance, improved fire resistance, and dust-proof auxiliaries
- Suitable for safety applications thanks to mechanically linked contacts and mirror contacts
- Outstanding breaking/making capacity up to 20 In with PLC direct connection



Technical Illustration

Assembly's dimensions

