

# Product data sheet

Specifications



IEC contactor, TeSys Deca, nonreversing, 32A, 20HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, 24VDC coil, open style

LC1D32BD

**Product availability: Stock - Normally stocked in distribution facility**

## Main

<b>Range of Product</b>	TeSys Deca
<b>Product or Component Type</b>	Contactors
<b>Device short name</b>	LC1D
<b>Contactors application</b>	Resistive load Motor control
<b>Utilisation category</b>	AC-3 AC-1 AC-4 AC-3e
<b>Poles description</b>	3P
<b>[Ue] rated operational voltage</b>	Power circuit <= 690 V AC 25...400 Hz Power circuit <= 300 V DC
<b>[Ie] rated operational current</b>	32 A (at <140 °F (60 °C)) at <= 440 V AC AC-3 for power circuit 50 A (at <140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit 32 A (at <140 °F (60 °C)) at <= 440 V AC AC-3e for power circuit
<b>[Uc] control circuit voltage</b>	24 V DC

## Complementary

<b>Motor power kW</b>	7.5 kW at 220...230 V AC 50/60 Hz (AC-3) 15 kW at 380...400 V AC 50/60 Hz (AC-3) 15 kW at 415...440 V AC 50/60 Hz (AC-3) 18.5 kW at 500 V AC 50/60 Hz (AC-3) 18.5 kW at 660...690 V AC 50/60 Hz (AC-3) 7.5 kW at 400 V AC 50/60 Hz (AC-4) 7.5 kW at 220...230 V AC 50/60 Hz (AC-3e) 15 kW at 380...400 V AC 50/60 Hz (AC-3e) 15 kW at 415...440 V AC 50/60 Hz (AC-3e) 18.5 kW at 500 V AC 50/60 Hz (AC-3e) 18.5 kW at 660...690 V AC 50/60 Hz (AC-3e)
<b>Maximum Horse Power Rating</b>	2 hp at 115 V AC 50/60 Hz for 1 phase motors 5 hp at 230/240 V AC 50/60 Hz for 1 phase motors 10 hp at 200/208 V AC 50/60 Hz for 3 phase motors 10 hp at 230/240 V AC 50/60 Hz for 3 phase motors 20 hp at 460/480 V AC 50/60 Hz for 3 phase motors 25 hp at 575/600 V AC 50/60 Hz for 3 phase motors
<b>Compatibility code</b>	LC1D
<b>Pole contact composition</b>	3 NO
<b>Protective cover</b>	With
<b>[Ith] conventional free air thermal current</b>	10 A (at 140 °F (60 °C)) for signalling circuit 50 A (at 140 °F (60 °C)) for power circuit

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

<b>Irms rated making capacity</b>	140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1 550 A at 440 V for power circuit conforming to IEC 60947
<b>Rated breaking capacity</b>	550 A at 440 V for power circuit conforming to IEC 60947
<b>[Icw] rated short-time withstand current</b>	260 A 104 °F (40 °C) - 10 s for power circuit 430 A 104 °F (40 °C) - 1 s for power circuit 60 A 104 °F (40 °C) - 10 min for power circuit 138 A 104 °F (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 63 A gG at <= 690 V coordination type 1 for power circuit 63 A gG at <= 690 V coordination type 2 for power circuit
<b>Average impedance</b>	2 mOhm - Ith 50 A 50 Hz for power circuit
<b>Power dissipation per pole</b>	2 W AC-3 5 W AC-1 2 W AC-3e
<b>[UI] rated insulation voltage</b>	Power circuit 690 V IEC 60947-4-1 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
<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>	30 Mcycles
<b>Electrical durability</b>	1.65 Mcycles 32 A AC-3 <= 440 V 1.4 Mcycles 50 A AC-1 <= 440 V 1.65 Mcycles 32 A AC-3e <= 440 V
<b>Control circuit type</b>	DC standard
<b>Coil technology</b>	Built-in bidirectional peak limiting diode suppressor
<b>Control circuit voltage limits</b>	0.1...0.25 Uc (-40...158 °F (-40...70 °C)):drop-out DC 0.7...1.25 Uc (-40...140 °F (-40...60 °C)):operational DC 1...1.25 Uc (140...158 °F (60...70 °C)):operational DC
<b>Inrush power in W</b>	5.4 W 68 °F (20 °C))
<b>Hold-in power consumption in W</b>	5.4 W 68 °F (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>	<p>Control circuit: screw clamp terminals 1 0.002...0.006 in<sup>2</sup> (1...4 mm<sup>2</sup>) - cable stiffness: flexible without cable end</p> <p>Control circuit: screw clamp terminals 2 0.002...0.006 in<sup>2</sup> (1...4 mm<sup>2</sup>) - cable stiffness: flexible without cable end</p> <p>Control circuit: screw clamp terminals 1 0.002...0.006 in<sup>2</sup> (1...4 mm<sup>2</sup>) - cable stiffness: flexible with cable end</p> <p>Control circuit: screw clamp terminals 2 0.002...0.004 in<sup>2</sup> (1...2.5 mm<sup>2</sup>) - cable stiffness: flexible with cable end</p> <p>Control circuit: screw clamp terminals 1 0.002...0.006 in<sup>2</sup> (1...4 mm<sup>2</sup>) - cable stiffness: solid without cable end</p> <p>Control circuit: screw clamp terminals 2 0.002...0.006 in<sup>2</sup> (1...4 mm<sup>2</sup>) - cable stiffness: solid without cable end</p> <p>Power circuit: screw clamp terminals 1 0.004...0.02 in<sup>2</sup> (2.5...10 mm<sup>2</sup>) - cable stiffness: flexible without cable end</p> <p>Power circuit: screw clamp terminals 2 0.004...0.02 in<sup>2</sup> (2.5...10 mm<sup>2</sup>) - cable stiffness: flexible without cable end</p> <p>Power circuit: screw clamp terminals 1 0.002...0.02 in<sup>2</sup> (1...10 mm<sup>2</sup>) - cable stiffness: flexible with cable end</p> <p>Power circuit: screw clamp terminals 2 0.002...0.009 in<sup>2</sup> (1.5...6 mm<sup>2</sup>) - cable stiffness: flexible with cable end</p> <p>Power circuit: screw clamp terminals 1 0.002...0.02 in<sup>2</sup> (1.5...10 mm<sup>2</sup>) - cable stiffness: solid without cable end</p> <p>Power circuit: screw clamp terminals 2 0.004...0.02 in<sup>2</sup> (2.5...10 mm<sup>2</sup>) - cable stiffness: solid without cable end</p>
--------------------------------	---

<b>Tightening torque</b>	<p>Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm</p> <p>Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2</p> <p>Power circuit 22.1 lbf.in (2.5 N.m) screw clamp terminals flat Ø 6 mm</p> <p>Power circuit 22.1 lbf.in (2.5 N.m) screw clamp terminals Philips No 2</p> <p>Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2</p> <p>Power circuit 22.1 lbf.in (2.5 N.m) screw clamp terminals pozidriv No 2</p>
--------------------------	--

<b>Auxiliary contact composition</b>	1 NO + 1 NC
--------------------------------------	-------------

<b>Auxiliary contacts type</b>	<p>Mechanically linked 1 NO + 1 NC IEC 60947-5-1</p> <p>Mirror contact 1 NC IEC 60947-4-1</p>
--------------------------------	---

<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>	<p>1.5 ms on de-energisation between NC and NO contact</p> <p>1.5 ms on energisation between NC and NO contact</p>
-------------------------	--

<b>Mounting Support</b>	<p>Rail</p> <p>Plate</p>
-------------------------	--------------------------

## Environment

<b>Standards</b>	<p>CSA C22.2 No 14</p> <p>EN 60947-4-1</p> <p>EN 60947-5-1</p> <p>IEC 60947-4-1</p> <p>IEC 60947-5-1</p> <p>UL 60947-4-1</p> <p>IEC 60335-1:Clause 30.2</p> <p>IEC 60335-2-40:Annex JJ</p> <p>UL 60335-2-40:Annex JJ</p> <p>CSA C22.2 No 60947-4-1</p>
------------------	--

<b>Product Certifications</b>	<p>UL</p> <p>CCC</p> <p>CSA</p> <p>Marine</p> <p>UKCA</p> <p>EAC</p> <p>CB Scheme</p>
-------------------------------	---

<b>IP degree of protection</b>	IP20 front face IEC 60529
--------------------------------	---------------------------

<b>Protective treatment</b>	THIEC 60068-2-30
-----------------------------	------------------

<b>Climatic withstand</b>	<p>IACS E10 exposure to damp heat</p> <p>IEC 60947-1 Annex Q category D exposure to damp heat</p>
---------------------------	---

<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>Flame retardance</b>	V1 conforming to UL 94
<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 8 Gn for 11 ms)
<b>Height</b>	3.3 in (85 mm)
<b>Width</b>	1.8 in (45 mm)
<b>Depth</b>	4.0 in (101 mm)
<b>Product Weight</b>	1.179 lb(US) (0.535 kg)

## Ordering and shipping details

<b>Category</b>	US10I1222355
<b>Discount Schedule</b>	0I12
<b>GTIN</b>	3389110357257
<b>Returnability</b>	Yes
<b>Country of origin</b>	ID

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Nbr. of units in pkg.</b>	1
<b>Package 1 Height</b>	1.969 in (5.000 cm)
<b>Package 1 Width</b>	3.622 in (9.200 cm)
<b>Package 1 Length</b>	4.409 in (11.200 cm)
<b>Package weight(Lbs)</b>	20.635 oz (585.000 g)
<b>Unit Type of Package 2</b>	S02
<b>Number of Units in Package 2</b>	15
<b>Package 2 Height</b>	5.906 in (15.000 cm)
<b>Package 2 Width</b>	11.811 in (30.000 cm)
<b>Package 2 Length</b>	15.748 in (40.000 cm)
<b>Package 2 Weight</b>	19.963 lb(US) (9.055 kg)
<b>Unit Type of Package 3</b>	P06
<b>Number of Units in Package 3</b>	240
<b>Package 3 Height</b>	29.528 in (75.000 cm)
<b>Package 3 Width</b>	23.622 in (60.000 cm)
<b>Package 3 Length</b>	31.496 in (80.000 cm)
<b>Package 3 Weight</b>	340.614 lb(US) (154.500 kg)

## Contractual warranty

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



## 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	45 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	3 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]	40 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	1 kg CO2 eq.

## 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>
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>
PVC free	Yes

## Use Longer




### Lifetime extension

Repair	No
--------	----

## Use Again



### Repack and remanufacture

Recyclability potential, in %	75
Circularity Profile	<a href="#">End of Life Information</a>
Take-back	Nej
WEEE Label	 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

Dimensions Drawings

Dimensions



(1) Minimum electrical clearance

LC1		D25...D38	D183...D323
<b>b</b>		85	99
<b>c</b>	without cover or add-on blocks	99	99
	with cover, without add-on blocks	101	101
<b>c1</b>	with LAD N or C (2 or 4 contacts)	132	132
<b>c2</b>	with LA6 DK10	144	144
<b>c3</b>	with LAD T, R, S	152	152
	with LAD T, R, S and sealing cover	156	156

Connections and Schema

Wiring

---



Offer Marketing Illustration

Product benefits / Features

---



Offer Marketing Illustration

Product benefits / Features

---

### 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

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).

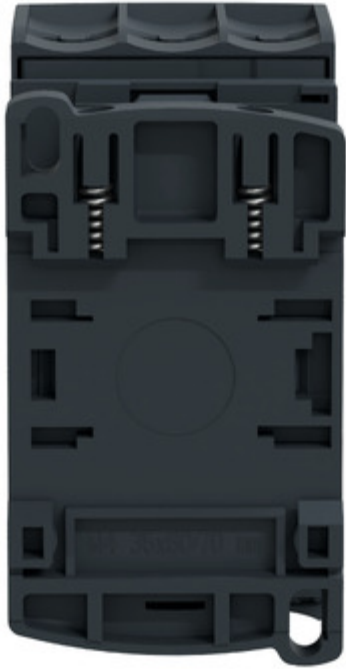


Image of product / Alternate images

Alternative

---





Technical Illustration

Assembly's dimensions

---

