

Product data sheet

Specifications



Contactor, TeSys Deca, 3P(3NO),
AC-3/AC-3e, <=440V, 12A, 24V AC
50/60Hz coil, screw clamp terminals,
bulk qty

LC1D12B7TQ

Main

Range	TeSys TeSys Deca
Range of product	TeSys Deca
Product or component type	Contactor
Device short name	LC1D
Contactor application	Resistive load Motor control
Utilisation category	AC-3 AC-1 AC-3e
Poles description	3P
[Ue] rated operational voltage	Power circuit <= 690 V AC 25...400 Hz
[Ie] rated operational current	25 A (at <140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit 12 A (at <140 °F (60 °C)) at <= 440 V AC AC-3 for power circuit 12 A (at <140 °F (60 °C)) at <= 440 V AC AC-3e for power circuit
[Uc] control circuit voltage	24 V AC 50/60 Hz

Complementary

Motor power kW	7.5 kW at 500 V AC 50/60 Hz 7.5 kW at 660...690 V AC 50/60 Hz 5.5 kW at 380...400 V AC 50/60 Hz 5.5 kW at 415...440 V AC 50/60 Hz 3 kW at 220...230 V AC 50/60 Hz
Motor power hp	1 hp at 115 V AC 60 Hz for 1 phase motors conforming to CSA 1 hp at 115 V AC 60 Hz for 1 phase motors conforming to UL 10 hp at 575/600 V AC 60 Hz for 3 phases motors conforming to UL 10 hp at 575/600 V AC 60 Hz for 3 phases motors conforming to CSA 2 hp at 230/240 V AC 60 Hz for 1 phase motors conforming to CSA 2 hp at 230/240 V AC 60 Hz for 1 phase motors conforming to UL 3 hp at 200/208 V AC 60 Hz for 3 phases motors conforming to CSA 3 hp at 200/208 V AC 60 Hz for 3 phases motors conforming to UL 3 hp at 230/240 V AC 60 Hz for 3 phases motors conforming to CSA 3 hp at 230/240 V AC 60 Hz for 3 phases motors conforming to UL 7.5 hp at 460/480 V AC 60 Hz for 3 phases motors conforming to CSA 7.5 hp at 460/480 V AC 60 Hz for 3 phases motors conforming to UL
Compatibility code	LC1D
Pole contact composition	3 NO
Protective cover	With
[Ith] conventional free air thermal current	10 A (at 140 °F (60 °C)) for control circuit 25 A (at 140 °F (60 °C)) for power circuit
Irms rated making capacity	140 A AC for control circuit conforming to IEC 60947-5-1 250 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	250 kA 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

Associated fuse rating	10 A gG for control circuit conforming to IEC 60947-5-1 25 A at <= 690 V coordination type 2 for power circuit 40 A at <= 690 V coordination type 1 for power circuit
Average impedance	2.5 mOhm - lth 25 A 50 Hz for power circuit
Power dissipation per pole	0.36 W AC-3 1.56 W AC-1 0.36 W AC-3e
[Ui] rated insulation voltage	Control circuit 600 V CSA Control circuit 600 V UL Power circuit 600 V CSA Power circuit 600 V UL Control circuit 690 V IEC 60947-4-1 Power circuit 690 V IEC 60947-4-1
Overvoltage category	III
[Uimp] rated impulse withstand voltage	6 kV IEC 60947
Safety reliability level	B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1
Mechanical durability	15 Mcycles
Control circuit type	AC 50/60 Hz
Coil technology	Without built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.3...0.6 Uc (140 °F (60 °C)):drop-out AC 50/60 Hz 0.8...1.1 Uc (140 °F (60 °C)):operational AC 50 Hz 0.85...1.1 Uc (140 °F (60 °C)):operational AC 60 Hz
Inrush power in VA	70 VA cos phi 0.75 (at 68 °F (20 °C))
Hold-in power consumption in VA	7 VA 50/60 Hz cos phi 0.3 (at 68 °F (20 °C))
Heat dissipation	2...3 W at 50/60 Hz for control circuit
Operating time	4...19 ms opening 12...22 ms closing
Maximum operating rate	3600 cyc/h at 60 °C
Connections - terminals	Control circuit: screw clamp terminals 1 0.002...0.006 in² (1...4 mm²) - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 0.002...0.006 in² (1...4 mm²) - cable stiffness: solid without cable end Control circuit: screw clamp terminals 1 0.002...0.006 in² (1...4 mm²) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 0.002...0.006 in² (1...4 mm²) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 0.002...0.006 in² (1...4 mm²) - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 0.002...0.004 in² (1...2.5 mm²) - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 0.002...0.006 in² (1...4 mm²) - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 0.002...0.006 in² (1...4 mm²) - cable stiffness: solid without cable end Power circuit: screw clamp terminals 1 0.002...0.006 in² (1...4 mm²) - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 2 0.002...0.006 in² (1...4 mm²) - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 1 0.002...0.006 in² (1...4 mm²) - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 0.002...0.004 in² (1...2.5 mm²) - cable stiffness: flexible with cable end
Tightening torque	Control circuit 15.05 lbf.in (1.7 N.m) flat Ø 6 mm Control circuit 15.05 lbf.in (1.7 N.m) Philips No 2 Power circuit 15.05 lbf.in (1.7 N.m) flat Ø 6 mm Power circuit 15.05 lbf.in (1.7 N.m) Philips No 2 Control circuit 15.05 lbf.in (1.7 N.m) pozidriv No 2 Power circuit 15.05 lbf.in (1.7 N.m) pozidriv No 2
Auxiliary contact composition	1 NO + 1 NC
Minimum switching voltage	17 V for control circuit

Minimum switching current	5 mA for control circuit
Insulation resistance	> 10 MOhm for control circuit
Non-overlap time	1.5 ms on de-energisation between NC and NO contacts 1.5 ms on energisation between NC and NO contacts
Mounting support	Plate Rail

Environment

Standards	EN/IEC 60947-5-1 UL 60947-4-1 CSA C22.2 No 14 EN/IEC 60947-4-1 IEC 60335-1
Product certifications	UL CCC GL DNV LROS (Lloyds register of shipping) RINA GOST BV CSA UKCA
IP degree of protection	IP2X IEC 60529 IP2X VDE 0106
Climatic withstand	IACS E10 exposure to damp heat IEC 60947-1 Annex Q category D exposure to damp heat
Permissible ambient air temperature around the device	23...140 °F (-5...60 °C) -40...158 °F (-40...70 °C) at Uc
Operating altitude	3000 m without derating
Fire resistance	1562 °F (850 °C) IEC 60695-2-1
Flame retardance	V1 UL 94
Mechanical robustness	Shocks contactor opened 10 Gn for 11 ms) Shocks contactor closed 15 Gn for 11 ms) Vibrations contactor opened 2 Gn, 5...300 Hz) Vibrations contactor closed 4 Gn, 5...300 Hz)
Height	3.03 in (77 mm)
Width	1.8 in (45 mm)
Depth	3.4 in (86 mm)
Net weight	7.17 lb(US) (3.25 kg)
Quantity per set	Set of 10

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	3.346 in (8.500 cm)
Package 1 Width	2.835 in (7.200 cm)
Package 1 Length	1.772 in (4.500 cm)
Package 1 Weight	11.746 oz (333.000 g)
Unit Type of Package 2	S02
Number of Units in Package 2	24

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	18.810 lb(US) (8.532 kg)
Unit Type of Package 3	P06
Number of Units in Package 3	384
Package 3 Height	31.496 in (80.000 cm)
Package 3 Width	30.315 in (77.000 cm)
Package 3 Length	23.622 in (60.000 cm)
Package 3 Weight	320.932 lb(US) (145.572 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	19 kg CO2 eq.
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]	16 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	0.8 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile

Use Better



Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
PVC free	Yes

Use Longer



Lifetime extension

Repair	No
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Use Again



Repack and remanufacture

Recyclability potential, in %	66
Circularity Profile	End of Life Information
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



The image shows a TeSys Deca Contactor, a black industrial electrical component. It has a green label with 'TeSys' and 'Schneider Electric' logos. The label also indicates 'Control' and 'LC1 D09'. The top of the unit has three screw terminals labeled '1', '3', and '5'. The bottom has four screw terminals labeled '14', '15', '22', and '23'. The unit is mounted on 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

Offer Marketing Illustration

Product benefits / Features

