

Product datasheet

Specifications



Contactors, TeSys Deca Advanced, 3P(3NO), AC-3/3e, <=440V, 18A, 24...60V AC/DC coil, snap-in terminals

LC1D18ABNE

Main

Range of product	TeSys Deca Advanced
Product or component type	Contactors
Device short name	LC1D
Contactors application	Motor control Resistive load
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	18 A (at <60 °C) at <= 440 V AC-3 for power circuit 18 A (at <60 °C) at <= 440 V AC-3e for power circuit 32 A (at <60 °C) at <= 440 V AC-1 for power circuit
[Uc] control circuit voltage	24...60 V AC 50/60 Hz 24...60 V DC

Complementary

Motor power kW	4 kW at 220...230 V AC 50 Hz (AC-3) 7.5 kW at 380...400 V AC 50 Hz (AC-3) 9 kW at 415 V AC 50 Hz (AC-3) 9 kW at 440 V AC 50 Hz (AC-3) 10 kW at 500 V AC 50 Hz (AC-3) 10 kW at 660...690 V AC 50 Hz (AC-3) 4 kW at 220...230 V AC 50 Hz (AC-3e) 7.5 kW at 380...400 V AC 50 Hz (AC-3e) 9 kW at 415 V AC 50 Hz (AC-3e) 9 kW at 440 V AC 50 Hz (AC-3e) 10 kW at 500 V AC 50 Hz (AC-3e) 10 kW at 660...690 V AC 50 Hz (AC-3e)
Compatibility code	LC1D
Pole contact composition	3 NO
Protective cover	With
[Ith] conventional free air thermal current	32 A (at 60 °C) for power circuit 10 A (at 60 °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

[Icw] rated short-time withstand current	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
Associated fuse rating	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
Average impedance	2.5 mOhm - lth 32 A 50 Hz for power circuit
Power dissipation per pole	0.8 W AC-3 0.8 W AC-3e 2.5 W AC-1
[Ui] rated insulation voltage	Power circuit: 690 V conforming to IEC 60947-4-1 Signalling circuit: 690 V conforming to IEC 60947-1
Overvoltage category	III
Pollution degree	3
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947
Safety reliability level	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
Mechanical durability	15 Mcycles
Electrical durability	2.2 Mcycles 15 A AC-3 at Ue <= 440 V 0.9 Mcycles 32 A AC-1 at Ue <= 440 V 2.2 Mcycles 15 A AC-3e at Ue <= 440 V
Control circuit type	AC/DC at 50/60 Hz AC/DC electronic
Coil technology	Built-in bidirectional peak limiting
Control circuit voltage limits	<= 0.1 Uc (-40...70 °C):drop-out AC/DC 0.85...1.1 Uc (-40...60 °C):operational AC 0.8...1.1 Uc (-40...60 °C):operational DC 1...1.1 Uc (60...70 °C):operational AC/DC
Inrush power in VA	15 VA 50/60 Hz (at 20 °C)
Inrush power in W	14 W (at 20 °C)
Hold-in power consumption in VA	0.9 VA 50/60 Hz (at 20 °C)
Hold-in power consumption in W	0.6 W at 20 °C
Heat dissipation	0.6 W at 50/60 Hz
Operating time	45...55 ms closing 20...90 ms opening
Maximum operating rate	3600 cyc/h at 60 °C

Connections - terminals	Control circuit: snap-in terminal 1 0.5...4 mm ² - cable stiffness: flexible without cable end
	Control circuit: snap-in terminal 2 0.5...4 mm ² - cable stiffness: flexible without cable end
	Control circuit: snap-in terminal 1 0.5...2.5 mm ² - cable stiffness: flexible with cable end
	Control circuit: snap-in terminal 2 0.5...2.5 mm ² - cable stiffness: flexible with cable end
	Control circuit: snap-in terminal 1 0.5...2.5 mm ² - cable stiffness: solid without cable end
	Control circuit: snap-in terminal 2 0.5...2.5 mm ² - cable stiffness: solid without cable end
	Power circuit: snap-in terminal 1 0.75...6 mm ² - cable stiffness: flexible without cable end
	Power circuit: snap-in terminal 2 0.75...6 mm ² - cable stiffness: flexible without cable end
	Power circuit: snap-in terminal 1 0.75...4 mm ² - cable stiffness: flexible with cable end
	Power circuit: snap-in terminal 2 0.75...4 mm ² - cable stiffness: flexible with cable end
	Power circuit: snap-in terminal 1 0.75...4 mm ² - cable stiffness: solid without cable end
	Power circuit: snap-in terminal 2 0.75...4 mm ² - cable stiffness: solid without cable end
	Auxiliary contact composition
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 60947-4-1 IEC 60947-4-1 UL 60947-4-1 CSA C22.2 No 60947-4-1 IEC 60335-1
Product certifications	CB Scheme CCC cULus CE UKCA EU-RO-MR by DNV
IP degree of protection	IP20 front face conforming to IEC 60529
Protective treatment	TH conforming to IEC 60068-2-30
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
Mechanical robustness	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)
Height	110 mm

Width	45 mm
Depth	92 mm
Product weight	524 g

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.600 cm
Package 1 Width	11.500 cm
Package 1 Length	10.700 cm
Package 1 Weight	518.000 g
Unit Type of Package 2	S02
Number of Units in Package 2	15
Package 2 Height	15.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	8.054 kg
Unit Type of Package 3	P06
Number of Units in Package 3	240
Package 3 Height	75.000 cm
Package 3 Width	60.000 cm
Package 3 Length	80.000 cm
Package 3 Weight	144.100 kg

Contractual warranty

Warranty (in months)	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	11 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]	7 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	0.6 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
SCIP Number	7d699774-c34b-4bf4-9ecb-388a149eefdd
EU RoHS Directive	Compliant By Exemption
REACH Regulation	Reference contains Substances of Very High Concern above the threshold

Use Longer



Lifetime extension

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

Use Again



Repack and remanufacture

Recyclability potential, in %	70
End of life manual availability	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

Technical Illustration

Assembly's dimensions

