Product datasheet

Specifications



Contactor, TeSys Deca, 3P(3NO), AC-3/AC-3e, <=440V, 9A, 24V AC 50/60Hz coil, spring terminals

LC1D093B7

Main

Range of product	TeSys Deca	
Product or component type	Contactor	
Device short name	LC1D	
Contactor application	Resistive load Motor control	
Utilisation category	AC-4 AC-3 AC-1 AC-3e	
Poles description	3P	
[Ue] rated operational voltage	Power circuit: <= 690 V AC 25400 Hz Power circuit: <= 300 V DC	
[le] rated operational current	9 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 20 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 9 A (at <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	2.2 kW at 220230 V AC 50/60 Hz (AC-3)
	4 kW at 380400 V AC 50/60 Hz (AC-3)
	4 kW at 415 V AC 50/60 Hz (AC-3)
	4 kW at 440 V AC 50/60 Hz (AC-3)
	5.5 kW at 500 V AC 50/60 Hz (AC-3)
	5.5 kW at 660690 V AC 50/60 Hz (AC-3)
	2.2 kW at 220230 V AC 50/60 Hz (AC-3e)
	4 kW at 380400 V AC 50/60 Hz (AC-3e)
	4 kW at 415 V AC 50/60 Hz (AC-3e)
	4 kW at 440 V AC 50/60 Hz (AC-3e)
	5.5 kW at 500 V AC 50/60 Hz (AC-3e)
	5.5 kW at 660690 V AC 50/60 Hz (AC-3e)
	2.2 kW at 400 V AC 50/60 Hz (AC-4)
Motor power hp	1 hp at 230/240 V AC 50/60 Hz for 1 phase motors
	2 hp at 200/208 V AC 50/60 Hz for 3 phases motors
	2 hp at 230/240 V AC 50/60 Hz for 3 phases motors
	5 hp at 460/480 V AC 50/60 Hz for 3 phases motors
	7.5 hp at 575/600 V AC 50/60 Hz for 3 phases motors
	0.33 hp at 115 V AC 50/60 Hz for 1 phase motors
Compatibility code	LC1D
Pole contact composition	3 NO
Protective cover	With
[Ith] conventional free air thermal	10 A (at 60 °C) for signalling circuit
current	16 A (at 60 °C) for power circuit

16 A (at 60 °C) for power circuit

Irms rated making capacity	250 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	250 A at 440 V for power circuit conforming to IEC 60947	
[Icw] rated short-time withstand current	105 A 40 $^{\circ}$ C - 10 s for power circuit 210 A 40 $^{\circ}$ C - 1 s for power circuit 30 A 40 $^{\circ}$ C - 1 min for power circuit 61 A 40 $^{\circ}$ 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	
Associated fuse rating	10 A gG for signalling circuit conforming to IEC 60947-5-1 25 A gG at <= 690 V coordination type 1 for power circuit 20 A gG at <= 690 V coordination type 2 for power circuit	
Average impedance	2.5 mOhm - Ith 16 A 50 Hz for power circuit	
Power dissipation per pole	1.56 W AC-1 0.2 W AC-3 0.2 W AC-3e	
[Ui] rated insulation voltage	Power circuit: 690 V conforming to IEC 60947-4-1 Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Signalling circuit: 690 V conforming to IEC 60947-1 Signalling circuit: 600 V CSA certified Signalling circuit: 600 V UL certified	
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 = 2000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1	
Mechanical durability	15 Mcycles	
Electrical durability	0.6 Mcycles 25 A AC-1 at Ue <= 440 V 2 Mcycles 9 A AC-3 at Ue <= 440 V 2 Mcycles 9 A AC-3e at Ue <= 440 V	
Control circuit type	AC at 50/60 Hz	
Coil technology	Without built-in suppressor module	
Control circuit voltage limits	0.30.6 Uc (-4070 °C):drop-out AC 50/60 Hz 0.81.1 Uc (-4060 °C):operational AC 50 Hz 0.851.1 Uc (-4060 °C):operational AC 60 Hz 11.1 Uc (6070 °C):operational AC 50/60 Hz	
Inrush power in VA	70 VA 60 Hz cos phi 0.75 (at 20 °C) 70 VA 50 Hz cos phi 0.75 (at 20 °C)	
Hold-in power consumption in VA	7.5 VA 60 Hz cos phi 0.3 (at 20 °C) 7 VA 50 Hz cos phi 0.3 (at 20 °C)	
Heat dissipation	23 W at 50/60 Hz	
Operating time	1222 ms closing 419 ms opening	
Maximum operating rate	3600 cyc/h at 60 °C	
Connections - terminals	Power circuit: spring terminals 1 2.5 mm ² - cable stiffness: flexible without cable end Power circuit: spring terminals 2 2.5 mm ² - cable stiffness: flexible without cable end Control circuit: spring terminals 1 2.5 mm ² - cable stiffness: flexible without cable end Control circuit: spring terminals 2 2.5 mm ² - cable stiffness: flexible without cable end	
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	25400 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	Rail Plate	

Environment

Standards	CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 60947-4-1 IEC 60335-1:Clause 30.2 IEC 60335-2-40:Annex JJ UL 60335-2-40:Annex JJ CSA C22.2 No 60947-4-1	
Product certifications	UL CCC CSA Marine UKCA EAC CB Scheme	
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	-4060 °C 6070 °C with derating	
Operating altitude	03000 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, 5300 Hz) Vibrations contactor closed (4 Gn, 5300 Hz) Shocks contactor open (10 Gn for 11 ms) Shocks contactor closed (15 Gn for 11 ms)	
Height	80 mm	
Width	45 mm	
Depth	86 mm	
Net weight	0.32 kg	

Packing Units

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Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.500 cm
Package 1 Width	10.300 cm
Package 1 Length	10.500 cm
Package 1 Weight	388.000 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	6.393 kg
Unit Type of Package 3	P06
Number of Units in Package 3	120
Package 3 Height	45.000 cm
Package 3 Width	60.000 cm
Package 3 Length	80.000 cm
Package 3 Weight	52.000 kg

Contractual warranty

Warranty

18 months

C 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 \geq

${\mathcal Q}$ Environmental footprint	
Carbon footprint (kg.eq.CO2 per CR, Total Life cycle)	18
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

$^{ m \bigcirc}$ Repack and remanufacture	
Circularity Profile	End of Life Information
Take-back	No
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins