

Product data sheet

Specifications



Contactor, TeSys Deca, 3P(3NO), AC-3/AC-3e, <=440V, 95A, 48V DC standard coil

LC1D95ED

Main

Range	TeSys
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-3e AC-4 AC-1
Poles description	3P
[Ue] rated operational voltage	Power circuit: <= 690 V AC 25...400 Hz
[Ie] rated operational current	95 A (at <60 °C) at <= 440 V AC-3 for power circuit 125 A (at <60 °C) at <= 690 V AC-1 for power circuit 95 A (at <60 °C) at <= 440 V AC-3e for power circuit
[Uc] control circuit voltage	48 V DC

Complementary

Motor power kW	25 kW at 220...230 V AC 50 Hz (AC-3) 45 kW at 380...400 V AC 50 Hz (AC-3) 45 kW at 415...440 V AC 50 Hz (AC-3) 55 kW at 500 V AC 50 Hz (AC-3) 45 kW at 660...690 V AC 50 Hz (AC-3) 15 kW at 400 V AC 50 Hz (AC-4) 25 kW at 220...230 V AC 50 Hz (AC-3e) 45 kW at 380...400 V AC 50 Hz (AC-3e) 45 kW at 415...440 V AC 50 Hz (AC-3e) 55 kW at 500 V AC 50 Hz (AC-3e) 45 kW at 660...690 V AC 50 Hz (AC-3e)
Motor power hp	7.5 hp at 120 V AC 60 Hz for 1 phase motors 15 hp at 230/240 V AC 60 Hz for 1 phase motors 30 hp at 200/208 V AC 60 Hz for 3 phases motors 30 hp at 230/240 V AC 60 Hz for 3 phases motors 60 hp at 460/480 V AC 60 Hz for 3 phases motors 60 hp at 575/600 V AC 60 Hz for 3 phases motors
Compatibility code	LC1D
Pole contact composition	3 NO
Contact compatibility	M9
Protective cover	With
[Ith] conventional free air thermal current	10 A (at 60 °C) for signalling circuit 125 A (at 60 °C) for power circuit

Irms rated making capacity	1100 A at 440 V AC 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	1100 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	1100 A 40 °C - 1 s for power circuit 800 A 40 °C - 10 s for power circuit 400 A 40 °C - 1 min for power circuit 135 A 40 °C - 10 min for power circuit 140 A - 100 ms for signalling circuit 120 A - 500 ms for signalling circuit 100 A - 1 s for signalling circuit
Associated fuse rating	10 A gG for signalling circuit conforming to IEC 60947-5-1 200 A gG at ≤ 690 V coordination type 1 for power circuit 160 A gG at ≤ 690 V coordination type 2 for power circuit
Average impedance	0.8 mOhm - lth 125 A 50 Hz for power circuit
Power dissipation per pole	12.5 W AC-1 7.2 W AC-3 7.2 W AC-3e
[Ui] rated insulation voltage	Power circuit: 1000 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	8 kV conforming to IEC 60947
Safety reliability level	B10d = 1.3 Mcycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 20 Mcycles contactor with mechanical load conforming to EN/ISO 13849-1
Mechanical durability	10 Mcycles
Electrical durability	1.2 Mcycles 95 A AC-3 1.3 Mcycles 125 A AC-1 1.2 Mcycles 95 A AC-3e
Control circuit type	DC standard
Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.1...0.3 Uc (-40...70 °C):drop-out DC 0.85...1.1 Uc (-40...55 °C):operational DC 1...1.1 Uc (55...70 °C):operational DC
Inrush power in W	22 W (at 20 °C)
Hold-in power consumption in W	22 W at 20 °C
Operating time	95...130 ms closing 20...35 ms opening
Time constant	75 ms
Maximum operating rate	3600 cyc/h 60 °C
Connections - terminals	Control circuit: screw clamp terminals 2 1...2.5 mm ² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1...2.5 mm ² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1...4 mm ² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 1...4 mm ² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 1...4 mm ² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 1...4 mm ² - cable stiffness: solid without cable end Power circuit: connector 1 4...50 mm ² - cable stiffness: flexible without cable end Power circuit: connector 2 4...25 mm ² - cable stiffness: flexible without cable end Power circuit: connector 1 4...50 mm ² - cable stiffness: flexible with cable end Power circuit: connector 2 4...16 mm ² - cable stiffness: flexible with cable end Power circuit: connector 1 4...50 mm ² - cable stiffness: solid without cable end Power circuit: connector 2 4...25 mm ² - cable stiffness: solid without cable end
Tightening torque	Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver Philips No 2 Power circuit: 12 N.m - on connector - with screwdriver flat Ø 6 to Ø 8 mm Power circuit: 12 N.m - on connector hexagonal screw head 4 mm Control circuit: 1.2 N.m - on screw clamp terminals - 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	Rail Plate

Environment

Standards	EN/IEC 60947-1 EN/IEC 60947-4-1 EN/IEC 60947-5-1 GB/T 14048.4
Product certifications	IECEE CB Scheme CCC EAC LROS (Lloyds register of shipping) RINA BV DNV-GL
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
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) Shocks contactor open (8 Gn for 11 ms) Vibrations contactor closed (3 Gn, 5...300 Hz) Shocks contactor closed (10 Gn for 11 ms)
Height	127 mm
Width	85 mm
Depth	186 mm
Net weight	2.61 kg

Packing Units

Unit Type of Package 1	Db
Number of Units in Package 1	1
Package 1 Height	21.0 cm
Package 1 Width	10.0 cm
Package 1 Length	14.0 cm
Package 1 Weight	2.489 kg

Offer Sustainability

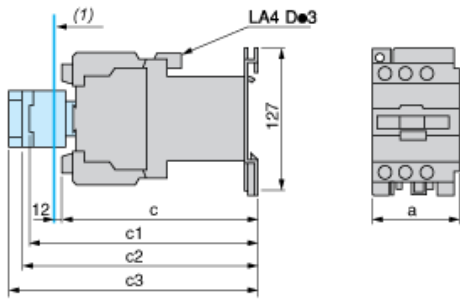
Sustainable offer status	Green Premium product
REACH Regulation	REACH Declaration
REACH free of SVHC	Yes
EU RoHS Directive	Compliant EU RoHS Declaration
Toxic heavy metal free	Yes

Mercury free	Yes
China RoHS Regulation	China RoHS declaration Pro-active China RoHS declaration (out of China RoHS legal scope)
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
PVC free	Yes

Contractual warranty

Warranty	18 months
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Dimensions



(1) Minimum electrical clearance

LC1		D80 and D95
a		85
b1	with LAD 4BB3	–
	with LA4 DF, DT	–
c	without cover or add-on blocks	181
	with cover, without add-on blocks	186
c1	with LAD N (1 contact)	204
	with LAD N or C (2 or 4 contacts)	210
c2	with LA6 DK10	221
c3	with LAD T, R, S	229
	with LAD T, R, S and sealing cover	233

