Product data sheet
Characteristics

LC1D50E6
contactor TeSys Deca - 3 poles - AC-3 440V 50 A - coil 48 V AC

Commercial status
End of Commercialisation :

⚠ End of Commercialisation

Main

Range	TeSys
Range of product	TeSys D
Product or component type	Contactor
Device short name	LC1D
Contactor application	Motor control Motor control
Utilisation category	AC-1 AC-2 AC-4 AC-3
Poles description	3P
[Ue] rated operational voltage	Power circuit: <= 690 V AC 25...400 Hz
[Ie] rated operational current	80 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 65 A (at <60 °C) at <= 440 V AC AC-3 for power circuit
[Uc] control circuit voltage	220 V AC 50/60 Hz

Complementary

Motor power kW	25 KW at 415 V AC 50 Hz 30 KW at 440 V AC 50 Hz 30 KW at 500 V AC 50 Hz 33 KW at 660...690 V AC 50 Hz 15 KW at 220...230 V AC 50 Hz 30 KW at 1000 V AC 50 Hz (AC-4) 30 KW at 380...400 V AC 50 Hz (AC-3) 11 KW at 400 V AC 50 Hz (AC-4)
Motor power hp	7.5 Hp at 230/240 V AC 60 Hz for 1 phase motors 15 Hp at 200/208 V AC 60 Hz for 3 phases motors 15 Hp at 230/240 V AC 60 Hz for 3 phases motors 40 Hp at 460/480 V AC 60 Hz for 3 phases motors 40 Hp at 575/600 V AC 60 Hz for 3 phases motors 10 Hp at 230/240 V AC 60 Hz for 1 phase motors 5 Hp at 115 V AC 60 Hz for 1 phase motors
Compatibility code	LC1D
Pole contact composition	3 NO
Protective cover	With
[Ith] conventional free air thermal current	80 A (at 60 °C) for power circuit 10 A (at 60 °C) for control circuit
Irms rated making capacity	140 A at 440 V AC for control circuit conforming to IEC 60947-5-1 140 A AC for control circuit conforming to IEC 60947-5-1 1000 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	1000 A at 440 V for power circuit conforming to IEC 60947
Associated fuse rating	100 A gG at <= 690 V coordination type 1 for power circuit 100 A gG at <= 690 V coordination type 2 for power circuit conforming-to IEC 60947-5-1 125 A gG at <= 690 V coordination type 1 for power circuit 10 A gG for control circuit conforming to IEC 60947-5-1
Power dissipation per pole	9.6 W AC-1 6.3 W AC-3
[Ui] rated insulation voltage	Control circuit: 600 V UL certified[RETURN]Power circuit: 600 V CSA certified[RETURN]Power circuit: 600 V UL certified conforming to IEC 60947-1[RETURN]Control circuit: 690 V conforming to IEC 60947-1[RETURN]Power circuit: 690 V CSA certified conforming to IEC 60947-1[RETURN]Control circuit: 600 V CSA certified
Overvoltage category	III
[Uimp] rated impulse withstand voltage	6 KV conforming to IEC 60947

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Safety reliability level	B10d = 20000000 cycles contactor with mechanical load conforming- to EN/ISO 13849-1 B10d = 1369863 cycles contactor with nominal load conforming- to EN/ISO 13849-1
Mechanical durability	6000000 Cycles
Control circuit type	AC at 50/60 Hz
Coil technology	Without built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.85...1.1 Uc (-40…55 °C):operational AC 60 Hz 1...1.1 Uc (55…70 °C):operational AC 60 Hz 0.8...1.1 Uc (-40…60 °C):operational AC 50 Hz 0.3...0.6 Uc (-40…70 °C):drop-out AC 50/60 Hz
Inrush power in VA	160 VA cos phi 0.75 (at 20 °C) 140 VA cos phi 0.75 (at 20 °C)
Hold-in power consumption in VA	15 VA 50 Hz cos phi 0.3 (at 20 °C) 13 VA 60 Hz cos phi 0.3 (at 20 °C)
Heat dissipation	4…5 W at 50/60 Hz for control circuit
Operating time	12...26 ms closing 4...19 ms opening
Maximum operating rate	3600 Cyc/H 60 °C
Connections - terminals	Control circuit: screw clamp terminals 2 1…4 mm² - cable stiffness: rigid without- cable end Control circuit: screw clamp terminals 1 1…4 mm² - cable stiffness: flexible with- out cable end Control circuit: screw clamp terminals 2 1…4 mm² - cable stiffness: flexible with- out cable end Control circuit: screw clamp terminals 1 1…2.5 mm² - cable stiffness: flexible- with cable end Control circuit: screw clamp terminals 2 1…2.5 mm² - cable stiffness: flexible- with cable end Power circuit: screw terminals 1 2.5…25 mm² - cable stiffness: rigid Power circuit: screw terminals 2 2.5…16 mm² - cable stiffness: rigid without ca- ble end Power circuit: screw terminals 1 2.5…25 mm² - cable stiffness: flexible without- cable end Power circuit: screw terminals 2 2.5…16 mm² - cable stiffness: flexible without- cable end Power circuit: screw terminals 1 2.5…25 mm² - cable stiffness: flexible with ca- ble end Power circuit: screw terminals 2 2.5…10 mm² - cable stiffness: flexible with ca- ble end Control circuit: screw clamp terminals 2 1…4 mm² - cable stiffness: rigid Control circuit: screw clamp terminals 1 1…4 mm² - cable stiffness: rigid
Tightening torque	Control circuit: 1.7 N.m - on screw clamp terminal - with screwdriver Philips No 2 Power circuit: 5 N.m - on screw terminal - with screwdriver flat Ø 6 to Ø 8 mm Control circuit: 1.7 N.m - on screw clamp terminal - with screwdriver pozidriv No 2 Control circuit: 1.7 N.m - on screw clamp terminal - with screwdriver flat Ø 6 mm
Auxiliary contact composition	1 NO + 1 NC
Auxiliary contacts type	Type mirror contact 1 NC conforming to IEC 60947-4-1 type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1
Terminals description ISO n°1	(21-22)NC (A1-A2)CO
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 energisation between NC and NO contacts 1.5 Ms on de-energisation between NC and NO contacts
Mounting support	Plate Plate

Environment

Standards	IEC 60947-5-1 EN 60947-4-1 UL 508 CSA C22.2 No 14 IEC 60947-4-1
Product certifications	BV[RETURN]RINA[RETURN]CSA[RETURN]CCC[RETURN]GL[RETURN]L-ROS (Lloyds register of shipping)[RETURN]DNV[RETURN]UL[RETURN]GL
IP degree of protection	IP2X conforming to VDE 0106 IP2X conforming to IEC 60529
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	-60…80 °C storage -40…60 °C operation 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	Shocks contactor closed (15 gn) Vibrations contactor opened (2 Gn, 5...300 Hz) Vibrations contactor closed (4 Gn, 5...300 Hz) Shocks contactor opened (10 Gn)
Height	122 Mm
Width	55 Mm
Depth	120 Mm
Net weight	1.4 Kg
Quantity per set	Set of 10

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1

Contractual warranty

Warranty	18 months

Product Life Status : End of commercialisation

LC1D50E6 may be replaced by any of the following products:

LC1D50AE7

Contactor, TeSys Deca, 3P(3 NO), AC-3/AC-3e, <=400V, 50A, 48V AC 50/60Hz coil, screw clamp terminals

Qty 1

Substitution date: |