Product datasheet

Specification





CONTACTOR 600VAC 50AMP IEC +OPTIONS

LC1D50L6

! Discontinued on: 18 Oct 2020

EAN Code: 3389110421668

① Discontinued

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-1 AC-3 AC-2 AC-4 AC-3e
poles description	3P
[Ue] rated operational voltage	Power circuit: <= 690 V AC 25400 Hz
[le] rated operational current	80 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 50 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 50 A (at <60 °C) at <= 440 V AC AC-3e for power circuit
[Uc] control circuit voltage	200 V AC 60 Hz

Complementary

Motor power kW	22 kW at 380400 V AC 50/60 Hz
	25 kW at 415 V AC 50/60 Hz
	30 kW at 440 V AC 50/60 Hz
	30 kW at 500 V AC 50/60 Hz
	33 kW at 660690 V AC 50/60 Hz
	15 kW at 220230 V AC 50/60 Hz
Motor power hp	3 hp at 115 V AC 60 Hz for 1 phase motors conforming to CSA
	3 hp at 115 V AC 60 Hz for 1 phase motors conforming to UL
	15 hp at 200/208 V AC 60 Hz for 3 phases motors conforming to CSA
	15 hp at 200/208 V AC 60 Hz for 3 phases motors conforming to UL
	15 hp at 230/240 V AC 60 Hz for 3 phases motors conforming to CSA
	15 hp at 230/240 V AC 60 Hz for 3 phases motors conforming to UL
	40 hp at 460/480 V AC 60 Hz for 3 phases motors conforming to CSA
	40 hp at 460/480 V AC 60 Hz for 3 phases motors conforming to UL
	40 hp at 575/600 V AC 60 Hz for 3 phases motors conforming to CSA
	40 hp at 575/600 V AC 60 Hz for 3 phases motors conforming to UL
	7.5 hp at 230/240 V AC 60 Hz for 1 phase motors conforming to CSA
	7.5 hp at 230/240 V AC 60 Hz for 1 phase motors conforming to UL
Compatibility code	LC1D
Pole contact composition	3 NO
Protective cover	With
[Ith] conventional free air thermal current	10 A (at 60 °C) for control circuit
Current	80 A (at 60 °C) for power circuit

Irms rated making capacity	140 A AC for control circuit conforming to IEC 60947-5-1 900 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	900 A at 440 V for power circuit conforming to IEC 60947
Associated fuse rating	10 A gG for control circuit conforming to IEC 60947-5-1 100 A gG at <= 690 V coordination type 1 for power circuit 100 A gG at <= 690 V coordination type 2 for power circuit
Average impedance	1.5 mOhm - Ith 80 A 50 Hz for power circuit
Power dissipation per pole	3.7 W AC-3 9.6 W AC-1 3.7 W AC-3e
[Ui] rated insulation voltage	Control circuit: 600 V CSA certified Control circuit: 600 V UL certified Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Control circuit: 690 V conforming to IEC 60947-1 Power circuit: 690 V conforming to IEC 60947-1
Overvoltage category	III
[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	6000000 cycles
Control circuit type	AC at 60 Hz
Coil technology	Without built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.851.1 Uc (60 °C):operational AC 60 Hz 0.30.6 Uc (60 °C):drop-out AC 60 Hz
Inrush power in VA	140 VA cos phi 0.75 (at 20 °C) 160 VA cos phi 0.75 (at 20 °C)
Hold-in power consumption in VA	13 VA 50 Hz cos phi 0.3 (at 20 °C) 15 VA 60 Hz cos phi 0.3 (at 20 °C)
Heat dissipation	45 W at 50/60 Hz for control circuit
Operating time	1226 ms closing 419 ms opening
Maximum operating rate	3600 cyc/h 60 °C
Connections - terminals	Control circuit: screw clamp terminal 1 14 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminal 2 14 mm² - cable stiffness: solid without cable
	control circuit: screw clamp terminal 1 12.5 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminal 2 12.5 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminal 1 14 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminal 2 14 mm² - cable stiffness: flexible with cable end Power circuit: connector 1 2.535 mm² - cable stiffness: solid with cable end
Tightening torque	Power circuit: connector 2 2.535 mm² - cable stiffness: solid with cable end Power circuit: connector 1 2.535 mm² - cable stiffness: flexible without cable end Power circuit: connector 2 2.525 mm² - cable stiffness: flexible without cable end Power circuit: connector 1 2.535 mm² - cable stiffness: flexible with cable end Power circuit: connector 2 2.535 mm² - cable stiffness: flexible with cable end
ngitening wique	Control circuit: 1.2 N.m - on screw clamp terminal - with screwdriver flat Ø 6 mm Control circuit: 1.2 N.m - on screw clamp terminal - with screwdriver Philips No 2 Power circuit: 5 N.m - on screw clamp terminal - with screwdriver flat Ø 6 mm Power circuit: 5 N.m - on screw clamp terminal - with screwdriver flat Ø 8 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

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	Rail Plate

Environment

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Standards	UL 508 IEC 60947-4-1 IEC 60947-5-1 EN 60947-4-1 CSA C22.2 No 14 EN 60947-5-1
Product certifications	BV UL GOST CSA LROS (pending) DNV CCC RINA GL UKCA
IP degree of protection	IP2X conforming to IEC 60529 IP2X conforming to VDE 0106
Climatic withstand	conforming to IACS E10 exposure to damp heat
Permissible ambient air temperature around the device	-560 °C -4070 °C at Uc
Operating altitude	3000 m without derating
Fire resistance	850 °C conforming to IEC 60695-2-1
Flame retardance	V1 conforming to 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, 5300 Hz) Vibrations contactor closed (4 Gn, 5300 Hz)
Height	122 mm
Width	55 mm
Depth	119 mm
Net weight	1.4 kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	13 cm
Package 1 Width	13 cm
Package 1 Length	9 cm
Package 1 Weight	1.4 kg

Contractual warranty

144 4	
Warranty	18 months



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Transparency RoHS/REACh

Well-being performance

⊘	Reach Free Of Svhc
⊘	Toxic Heavy Metal Free
⊘	Mercury Free
⊘	Rohs Exemption Information Yes
⊘	Pvc Free

Certifications & Standards

Reach Regulation	REACh Declaration
Eu Rohs Directive	Compliant
	EU RoHS Declaration
China Rohs Regulation	China RoHS declaration Pro-active China RoHS declaration (out of China RoHS legal scope)
	Pro-active Crima Norro deciaration (out of Crima Norro legal scope)
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
Circularity Profile	End of Life Information