



Main

Range of product	TeSys D
Product or component type	Contactors
Device short name	LC1D
Contactors application	Resistive load
Utilisation category	AC-1
Control circuit type	AC
Coil type	Standard
Poles description	4P
Pole contact composition	4 NO
[Ie] rated operational current	80 A (at <60 °C) AC AC-1 for power circuit
Motor power hp	10 hp at 230/240 V AC 60 Hz for 1P motors conforming to CSA 10 hp at 230/240 V AC 60 Hz for 1P motors conforming to UL 20 hp at 200/208 V AC 60 Hz for 3P motors conforming to CSA 20 hp at 200/208 V AC 60 Hz for 3P motors conforming to UL 20 hp at 230/240 V AC 60 Hz for 3P motors conforming to CSA 20 hp at 230/240 V AC 60 Hz for 3P motors conforming to UL 5 hp at 115 V AC 60 Hz for 1P motors conforming to CSA 5 hp at 115 V AC 60 Hz for 1P motors conforming to UL 50 hp at 460/480 V AC 60 Hz for 3P motors conforming to CSA 50 hp at 460/480 V AC 60 Hz for 3P motors conforming to UL 50 hp at 575/600 V AC 60 Hz for 3P motors conforming to CSA 50 hp at 575/600 V AC 60 Hz for 3P motors conforming to UL
[Uc] control circuit voltage	230 V AC 50/60 Hz
Connections - terminals	Control circuit: screw clamp terminal 1 x 1...4 mm ² solid without cable end Control circuit: screw clamp terminal 2 x 1...4 mm ² flexible without cable end Control circuit: screw clamp terminal 2 x 1...4 mm ² solid without cable end Power circuit: screw clamp terminal 1 x 1...35 mm ² solid without cable end Power circuit: screw clamp terminal 2 x 1...25 mm ² solid without cable end Power circuit: screw clamp terminal 2 x 1...35 mm ² solid without cable end

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Complementary

Coil technology	Without built-in bidirectional peak limiting diode suppressor
Protective cover	With
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
Control circuit voltage limits	Drop-out: 0.3...0.6 U _c at 50/60 Hz (at <60 °C) Operational: 0.8...1.1 U _c at 50 Hz (at <60 °C) Operational: 0.85...1.1 U _c at 60 Hz (at <60 °C)
[U _i] 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
[U _{imp}] rated impulse withstand voltage	8 kV conforming to IEC 60947
Overvoltage category	III
Mounting support	Plate Rail
Flame retardance	V1 conforming to UL 94
Tightening torque	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 Phillips 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
[U _e] rated operational voltage	Power circuit: ≤ 690 V AC 25...400 Hz
[I _{th}] conventional free air thermal current	10 A (at 60 °C) for control circuit 80 A (at 60 °C) for power circuit
I _{rms} rated making capacity	1000 A at 440 V for power circuit conforming to IEC 60947 140 A AC for control circuit conforming to IEC 60947-5-1
Rated breaking capacity	1000 A at 440 V for power circuit conforming to IEC 60947
Associated fuse rating	10 A gG for control circuit conforming to IEC 60947-5-1 125 A gG at ≤ 690 V coordination type 2 for power circuit 160 A gG at ≤ 690 V coordination type 1 for power circuit
Average impedance	- I _{th} 80 A 50 Hz for power circuit
Power dissipation per pole	6.4 W AC-1
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 60 Hz cos phi 0.3 (at 20 °C) 15 VA 50 Hz cos phi 0.3 (at 20 °C)
Operating time	12...26 ms closing 4...19 ms opening
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
Maximum operating rate	3600 cyc/h 60 °C
Minimum switching current	5 mA for control circuit
Minimum switching voltage	17 V 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
Insulation resistance	> 10 MOhm for control circuit
Height	127 mm
Width	85 mm
Depth	130 mm
Net weight	1.44 kg

Environment

Standards	CSA C22.2 No 14 IEC 60947-5-1 EN 60947-5-1
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IEC 60947-4-1
EN 60947-4-1
UL 508

Product certifications	CCC GOST DNV UL GL LROS (Lloyds register of shipping) BV RINA CSA
IP degree of protection	IP2x conforming to IEC 60529 IP2x conforming to VDE 0106
Protective treatment	TH (pollution degree 3) conforming to IEC 60068
Ambient air temperature for operation	-5...60 °C
Ambient air temperature for storage	-60...80 °C
Permissible ambient air temperature around the device	-40...70 °C at Uc
Operating altitude	3000 m without derating
Fire resistance	850 °C conforming to IEC 60695-2-1
Shock resistance	10 gn contactor opened 15 gn contactor closed
Vibration resistance	2 gn 5...300 Hz contactor opened 4 gn 5...300 Hz contactor closed
Heat dissipation	4...5 W at 50/60 Hz for control circuit

Packing Units

Package 1 Weight	1.481 kg
Package 1 Height	1.550 dm
Package 1 width	1.320 dm
Package 1 Length	1.100 dm

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
RoHS exemption information	Yes
China RoHS Regulation	China RoHS declaration Pro-active China RoHS declaration (out of China RoHS legal scope)
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
PVC free	Yes
California proposition 65	WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov

Contractual warranty

Warranty	18 months
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