



Main

Range of product	TeSys D
Product or component type	Contactor
Device short name	LC1D
Contactor application	Motor control Resistive load
Utilisation category	AC-1 AC-2 AC-3 AC-4
Control circuit type	AC
Coil type	Standard
Poles description	3P
Pole contact composition	3 NO
[Ie] rated operational current	50 A ≤ 60 °C AC AC-3 power circuit 80 A ≤ 60 °C AC AC-1 power circuit
Control circuit voltage	220 V AC 50/60 Hz
Connections - terminals	Screw clamp terminal power circuit 1 1...35 mm <sup>2</sup> flexible without Screw clamp terminal power circuit 2 1...35 mm <sup>2</sup> flexible with Screw clamp terminal power circuit 1 1...35 mm <sup>2</sup> flexible with Screw clamp terminal power circuit 2 1...35 mm <sup>2</sup> flexible without Screw clamp terminal power circuit 1 1...35 mm <sup>2</sup> solid without Screw clamp terminal power circuit 2 1...25 mm <sup>2</sup> flexible with Screw clamp terminal power circuit 2 1...25 mm <sup>2</sup> flexible without Screw clamp terminal power circuit 2 1...35 mm <sup>2</sup> solid without Screw clamp terminal power circuit 2 1...25 mm <sup>2</sup> solid without Screw clamp terminal control circuit 1 1...4 mm <sup>2</sup> flexible without Screw clamp terminal control circuit 2 1...4 mm <sup>2</sup> flexible without Screw clamp terminal control circuit 1 1...4 mm <sup>2</sup> flexible with Screw clamp terminal control circuit 2 1...2,5 mm <sup>2</sup> flexible with Screw clamp terminal control circuit 1 1...4 mm <sup>2</sup> solid without Screw clamp terminal control circuit 2 1...4 mm <sup>2</sup> solid without

## Complementary

Coil technology	Without built-in bidirectional peak limiting diode suppressor
Protective cover	With
Motor power kW	15 kW 220...240 V AC 50/60 Hz 22 kW 380...400 V AC 50/60 Hz 25 kW 415 V AC 50/60 Hz 30 kW 440 V AC 50/60 Hz 30 kW 500 V AC 50/60 Hz 30 kW 1000 V AC 50/60 Hz 33 kW 660...690 V AC 50/60 Hz
Motor power hp	3 hp 115 V 1P AC 60 Hz UL 3 hp 115 V 1P AC 60 Hz CSA 7,5 hp 230/240 V 1P AC 60 Hz UL 7,5 hp 230/240 V 1P AC 60 Hz CSA 15 hp 230/240 V 3P AC 60 Hz CSA 15 hp 230/240 V 3P AC 60 Hz UL 15 hp 200/208 V 3P AC 60 Hz CSA 15 hp 200/208 V 3P AC 60 Hz UL 40 hp 575/600 V 3P AC 60 Hz CSA 40 hp 575/600 V 3P AC 60 Hz UL 40 hp 460/480 V 3P AC 60 Hz CSA 40 hp 460/480 V 3P AC 60 Hz UL
Auxiliary contacts type	Mechanically linked IEC 60947-5-1 1 NO + 1 NC Mirror contact IEC 60947-4-1 1 NC
Auxiliary contact composition	1 NO + 1 NC
Control circuit voltage limits	0.3...0.6 Uc 60 °C drop-out 50/60 Hz 0.8...1.1 Uc 60 °C operational 50 Hz 0.85...1.1 Uc 60 °C operational 60 Hz
[Ui] rated insulation voltage	600 V UL power circuit 600 V CSA power circuit 600 V UL control circuit 600 V CSA control circuit 690 V IEC 60947-1 power circuit 690 V IEC 60947-1 control circuit
[Uimp] rated impulse withstand voltage	8 kV IEC 60947
Oversupply category	III
Mounting support	Plate Rail
Flame retardance	V1 UL 94
Tightening torque	1,2 N.m control circuit screw clamp terminal flat Ø 6 mm 1,2 N.m control circuit screw clamp terminal Philips No 2 5 N.m power circuit screw clamp terminal flat Ø 6 mm 5 N.m power circuit screw clamp terminal flat Ø 8 mm
[Ue] rated operational voltage	<= 690 V AC 25...400 Hz power circuit
[Ith] conventional free air thermal current	10 A ≤ 60 °C control circuit 80 A ≤ 60 °C power circuit
Irms rated making capacity	140 A AC control circuit IEC 60947-5-1 900 A 440 V power circuit IEC 60947
Rated breaking capacity	900 A 440 V power circuit IEC 60947
Permissible short-time rating	84 A ≤ 40 °C 10 min power circuit 100 A 1 s control circuit 120 A 500 ms control circuit 140 A 100 ms control circuit 208 A ≤ 40 °C 1 min power circuit 400 A ≤ 40 °C 10 s power circuit 810 A ≤ 40 °C 1 s power circuit
Associated fuse rating	10 A gG control circuit IEC 60947-5-1 100 A gG <= 690 V type 1 power circuit 100 A gG <= 690 V type 2 power circuit
Average impedance	1,5 mOhm 50 Hz 80 A power circuit
Power dissipation per pole	3,7 W AC-3 9,6 W AC-1
Inrush power in VA	140 VA 20 °C 0,75 60 Hz 160 VA 20 °C 0,75 50 Hz
Hold-in power consumption in VA	13 VA 20 °C 0,3 60 Hz 15 VA 20 °C 0,3 50 Hz
Operating time	4...19 ms opening 12...26 ms closing

Mechanical durability	6000000 cycles
Operating rate	3600 cyc/h ≤ 60 °C
Minimum switching current	5 mA control circuit
Minimum switching voltage	17 V 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 MΩ control circuit
Terminals description ISO n°1	(13-14)NO (21-22)NC (A1-A2)CO
Height	127 mm
Width	75 mm
Depth	119 mm
Product weight	1,4 kg

## Environment

Standards	CSA C22-2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508
Product certifications	BV CCC CSA DNV (Det Norske Veritas) GL GOST LROS RINA UL
IP degree of protection	IP2x VDE 0106 IP2x IEC 60529
Protective treatment	TH IEC 60068 3
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
Fire resistance	850 °C IEC 60695-2-1
Shock resistance	10 gn contactor opened 15 gn contactor closed
Vibration resistance	2 gn contactor opened 5...300 Hz 4 gn contactor closed 5...300 Hz
Heat dissipation	4...5 W 50/60 Hz control circuit
RoHS EUR conformity date	2Q2009
RoHS EUR status	Will be compliant