



⚠ Discontinued

LC1D096JL has not been replaced. Please contact your customer care center for more information.

Main

Range	TeSys
Product name	TeSys D
Product or component type	Contactor
Device short name	LC1D
Contactor application	Resistive load Motor control
Utilisation category	AC-1 AC-3
Poles description	3P
Power pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit: ≤ 690 V AC 25...400 Hz Power circuit: ≤ 300 V DC
[Ie] rated operational current	9 A (at ≤ 60 °C) at ≤ 440 V AC AC-3 for power circuit 25 A (at ≤ 60 °C) at ≤ 440 V AC AC-1 for power circuit
Motor power kW	2.2 kW at 220...230 V AC 50/60 Hz 4 kW at 380...400 V AC 50/60 Hz 4 kW at 415...440 V AC 50/60 Hz 5.5 kW at 500 V AC 50/60 Hz 5.5 kW at 660...690 V AC 50/60 Hz
Motor power HP (UL / CSA)	1 hp at 230/240 V AC 50/60 Hz for 1 phase motors 2 hp at 200/208 V AC 50/60 Hz for 3 phases motors 2 hp at 230/240 V AC 50/60 Hz for 3 phases motors 5 hp at 460/480 V AC 50/60 Hz for 3 phases motors 7.5 hp at 575/600 V AC 50/60 Hz for 3 phases motors 0.33 hp at 115 V AC 50/60 Hz for 1 phase motors
Control circuit type	DC low consumption
[Uc] control circuit voltage	12 V DC
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947
Overtoltage category	III
[Ith] conventional free air thermal current	25 A (at 60 °C) for power circuit 10 A (at 60 °C) for signalling circuit
Irms rated making capacity	250 A at 440 V 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	250 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	105 A 40 °C - 10 s for power circuit

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

	<p>210 A 40 °C - 1 s for power circuit 30 A 40 °C - 10 min for power circuit 61 A 40 °C - 1 min for power circuit 100 A - 1 s for signalling circuit 120 A - 500 ms for signalling circuit 140 A - 100 ms for signalling circuit</p>
Associated fuse rating	10 A gG for signalling circuit conforming to IEC 60947-5-1 25 A gG at <= 690 V coordination type 1 for power circuit 20 A gG at <= 690 V coordination type 2 for power circuit
Average impedance	2.5 mOhm - lth 25 A 50 Hz for power circuit
[Ui] rated insulation voltage	Power circuit: 690 V conforming to IEC 60947-4-1 Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Signalling circuit: 690 V conforming to IEC 60947-1 Signalling circuit: 600 V CSA certified Signalling circuit: 600 V UL certified
Electrical durability	0.6 Mcycles 25 A AC-1 at Ue <= 440 V 2 Mcycles 9 A AC-3 at Ue <= 440 V
Power dissipation per pole	1.56 W AC-1 0.2 W AC-3
Safety cover	With
Mounting support	Rail Plate
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	RINA CCC BV CSA LROS (Lloyds register of shipping) GL GOST DNV UL
Connections - terminals	Control circuit: lugs-ring terminals (external diameter: 8 mm) Power circuit: lugs-ring terminals (external diameter: 8 mm)
Tightening torque	Control circuit: 1.7 N.m - on lugs-ring terminals - with screwdriver flat Ø 6 mm M3.5 Control circuit: 1.7 N.m - on lugs-ring terminals - with screwdriver Philips No 2 M3.5 Power circuit: 1.7 N.m - on lugs-ring terminals - with screwdriver flat Ø 8 mm M3.5 Power circuit: 1.7 N.m - on lugs-ring terminals - with screwdriver Philips No 2 M3.5
Operating time	65.45...88.55 ms closing 20...30 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	30 Mcycles
Maximum operating rate	3600 cyc/h 60 °C

Complementary

Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	Drop-out: 0.1...0.3 Uc DC (at 60 °C) Operational: 0.8...1.25 Uc DC (at 60 °C)
Time constant	40 ms
Inrush power in W	2.4 W (at 20 °C)
Hold-in power consumption in W	2.4 W at 20 °C
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 current	5 mA for signalling circuit
Minimum switching voltage	17 V 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

Insulation resistance > 10 MOhm for signalling circuit

Environment

IP degree of protection IP20 front face conforming to IEC 60529

Protective treatment TH conforming to IEC 60068-2-30

Pollution degree 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 conforming to IEC 60695-2-1

Flame retardance V1 conforming to UL 94

Mechanical robustness
Vibrations contactor open: 2 Gn, 5...300 Hz
Vibrations contactor closed: 4 Gn, 5...300 Hz
Shocks contactor open: 10 Gn for 11 ms
Shocks contactor closed: 15 Gn for 11 ms

Height 77 mm

Width 45 mm

Depth 95 mm

Net weight 0.48 kg

Contractual warranty

Warranty 18 months