

# LC1D1156B5

## TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 115 A - 24 V AC coil



### 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-3
Poles description	3P
Power pole contact composition	3 NO
[Ue] rated operational voltage	<= 690 V DC for power circuit <= 1000 V AC 25...400 Hz for power circuit
[Ie] rated operational current	200 A (<= 60 °C) at <= 440 V AC AC-1 for power circuit 115 A (<= 60 °C) at <= 440 V AC AC-3 for power circuit
Motor power kW	30 kW at 220...230 V AC 50/60 Hz 55 kW at 380...400 V AC 50/60 Hz 59 kW at 415...440 V AC 50/60 Hz 75 kW at 500 V AC 50/60 Hz 80 kW at 660...690 V AC 50/60 Hz 65 kW at 1000 V AC 50/60 Hz
Motor power HP (according to UL / CSA)	30 hp at 200/208 V AC 50/60 Hz for 3 phases motors 40 hp at 230/240 V AC 50/60 Hz for 3 phases motors 75 hp at 460/480 V AC 50/60 Hz for 3 phases motors 100 hp at 575/600 V AC 50/60 Hz for 3 phases motors
Control circuit type	AC 50 Hz
Control circuit voltage	24 V AC 50 Hz
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	8 kV conforming to IEC 60947
Overtoltage category	III
[Ith] conventional free air thermal current	200 A at <= 60 °C for power circuit
Irms rated making capacity	140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1 1260 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	1100 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	250 A <= 40 °C 10 min power circuit 550 A <= 40 °C 1 min power circuit 950 A <= 40 °C 10 s power circuit 1100 A <= 40 °C 1 s power circuit 100 A 1 s signalling circuit 120 A 500 ms signalling circuit 140 A 100 ms signalling circuit

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Associated fuse rating	250 A gG at ≤ 690 V coordination type 1 for power circuit 200 A gG at ≤ 690 V coordination type 2 for power circuit 10 A gG for signalling circuit
Average impedance	0.6 mOhm at 50 Hz - Ith 200 A for power circuit
[Ui] rated insulation voltage	600 V for power circuit certifications CSA 600 V for power circuit certifications UL 690 V for signalling circuit conforming to IEC 60947-1 600 V for signalling circuit certifications CSA 600 V for signalling circuit certifications UL 1000 V for power circuit conforming to IEC 60947-4-1
Power dissipation per pole	24 W AC-1 7.9 W AC-3
Safety cover	With
Mounting support	Plate Rail
Standards	EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508 CSA C22.2 n°14
Product certifications	BV CCC CSA DNV GL GOST RINA UL LROS
Connections - terminals	Control circuit: lugs-ring terminals - external diameter: 8 mm Power circuit: lugs-ring terminals - external diameter: 25 mm Power circuit: bars 1 5 x 25 mm
Tightening torque	Control circuit: 1.2 N.m - on lugs-ring terminals - with screwdriver flat Ø 6 mm screw : M3.5 Control circuit: 1.2 N.m - on lugs-ring terminals - with screwdriver Philips No 2 screw : M3.5 Power circuit: 12 N.m - on lugs-ring terminals hexagonal 13 mm screw : M8 Power circuit: 12 N.m - on bars hexagonal 13 mm screw : M8
Operating time	6...20 ms opening 20...50 ms closing
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 (millions)	8 Mcycles
Operating rate	2400 cyc/h at ≤ 60 °C

## Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.3...0.6 Uc at 55 °C drop-out 50 Hz 0.85...1.1 Uc at 55 °C operational 50 Hz
Inrush power in VA	300 VA at 20 °C (cos φ 0.8) 50 Hz
Hold-in power consumption in VA	22 VA at 20 °C (cos φ 0.3) 50 Hz
Heat dissipation	3...8 W at 50 Hz
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	IP2x 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 U <sub>c</sub>
Operating altitude	3000 m without derating in temperature
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 closed 15 Gn for 11 ms Shocks contactor open 6 Gn for 11 ms
Height	158 mm
Width	120 mm
Depth	136 mm
Product weight	2.5 kg