

# LC1D115006M5

contactor LC1-D - 3 poles - AC-3 440V 115 A -  
coil 220 V AC



## Main

Range of product	TeSys D
Product or component type	Contacteur
Device short name	LC1D
Contacteur application	Motor control Resistive load
Utilisation category	AC-1 AC-3
Control circuit type	AC
Coil type	AC 50 Hz
Poles description	3P
Pole contact composition	3 NO
[Ie] rated operational current	115 A (<= 60 °C) at 440 V AC AC-3 for power circuit 200 A (<= 60 °C) at 440 V AC AC-1 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 75 kW at 1000 V AC 50/60 Hz 75 kW at 500 V AC 50/60 Hz 80 kW at 660...690 V AC 50/60 Hz 59 kW at 415...440 V AC 50/60 Hz
Motor power hp	100 hp at 575/600 V AC 50/60 Hz for 3P motors conforming to CSA 100 hp at 575/600 V AC 50/60 Hz for 3P motors conforming to UL 30 hp at 200/208 V AC 50/60 Hz for 3P motors conforming to CSA 30 hp at 200/208 V AC 50/60 Hz for 3P motors conforming to UL 40 hp at 230/240 V AC 50/60 Hz for 3P motors conforming to CSA 40 hp at 230/240 V AC 50/60 Hz for 3P motors conforming to UL 75 hp at 460/480 V AC 50/60 Hz for 3P motors conforming to CSA 75 hp at 460/480 V AC 50/60 Hz for 3P motors conforming to UL

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[Uc] control circuit voltage	220 V AC 50 Hz
Connections - terminals	Control circuit: ring lugs - external diameter: 8 mm Control circuit: screw clamp terminal 2 cable 1...2.5 mm <sup>2</sup> - cable stiffness: flexible - with cable end Control circuit: screw clamp terminal 2 cable 1...2.5 mm <sup>2</sup> - cable stiffness: flexible - without cable end Control circuit: screw clamp terminal 1 cable 1...2.5 mm <sup>2</sup> - cable stiffness: flexible - with cable end Power circuit: screw clamp terminal 1 cable 10...120 mm <sup>2</sup> - cable stiffness: flexible - without cable end Power circuit: screw clamp terminal 1 cable 10...50 mm <sup>2</sup> - cable stiffness: flexible - without cable end Power circuit: screw clamp terminal 1 cable 10...120 mm <sup>2</sup> - cable stiffness: flexible - with cable end Power circuit: screw clamp terminal 1 cable 10...50 mm <sup>2</sup> - cable stiffness: flexible - with cable end Power circuit: screw clamp terminal 1 cable 10...120 mm <sup>2</sup> - cable stiffness: solid - without cable end Power circuit: screw clamp terminal 1 cable 10...50 mm <sup>2</sup> - cable stiffness: solid - without cable end Control circuit: screw clamp terminal 1 cable 1...2.5 mm <sup>2</sup> - cable stiffness: flexible - without cable end Control circuit: screw clamp terminal 1 cable 1...2.5 mm <sup>2</sup> - cable stiffness: solid - without cable end Control circuit: screw clamp terminal 2 cable 1...2.5 mm <sup>2</sup> - cable stiffness: solid - without cable end Power circuit: ring lugs - external diameter: 25 mm

## 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
Auxiliary contact composition	1 NO + 1 NC
Control circuit voltage limits	0.3...0.5 U <sub>c</sub> at 55 °C drop-out 50/60 Hz 0.85...1.1 U <sub>c</sub> at 55 °C operational 50 Hz
[U <sub>i</sub> ] rated insulation voltage	1000 V for power circuit conforming to IEC 60947-4-1 600 V for control circuit certifications CSA 600 V for control circuit certifications UL 600 V for power circuit certifications CSA 600 V for power circuit certifications UL 690 V for control circuit conforming to IEC 60947-4-1
[U <sub>imp</sub> ] 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 nm - on screw clamp terminal - with screwdriver flat Ø 6 mm M3.5 Control circuit: 1.2 nm - on screw clamp terminal - with screwdriver Philips No 2 M3.5 Power circuit: 12 nm - on screw clamp terminal M8 hexagonal
[U <sub>e</sub> ] rated operational voltage	1000 V AC 25...400 Hz for power circuit
[I <sub>th</sub> ] conventional free air thermal current	10 A at ≤ 60 °C for control circuit 200 A at ≤ 60 °C for power circuit
I <sub>rms</sub> rated making capacity	1260 A at 440 V AC for power circuit conforming to IEC 60947 140 A AC for control circuit conforming to IEC 60947-5-1
Rated breaking capacity	1100 kA at 440 V for power circuit conforming to IEC 60947
Associated fuse rating	10 A gG for control circuit conforming to IEC 60947-5-1 200 A at 690 V coordination type 2 for power circuit 250 A at 690 V coordination type 1 for power circuit
Average impedance	0.6 mOhm at 50 Hz - I <sub>th</sub> 200 A for power circuit
Power dissipation per pole	24 W AC-1 7.9 W AC-3
Inrush power in VA	280...350 VA at 20 °C (cos φ 0.8)
Hold-in power consumption in VA	22 VA at 20 °C (cos φ 0.3) 60 Hz
Operating time	40...75 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	80000000 cycles
Operating rate	2400 cyc/h at ≤ 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	158 mm
Width	120 mm
Depth	132 mm
Product weight	2.5 kg

## Environment

Standards	CSA C22-2 No 14 EN/IEC 60947-4-1 EN/IEC 60947-5-1 UL 508
Product certifications	BV CCC CSA DNV (Det Norske Veritas) GL LROS (Lloyds register of shipping) RINA UL
IP degree of protection	IP2x conforming to IEC 60529 IP2x conforming to VDE 0106
Protective treatment	TH (pollution degree: 3) conforming to IEC 60068-2-30
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
Shock resistance	15 gn contactor closed 6 gn contactor opened
Vibration resistance	2 gn 5...300 Hz contactor opened 4 gn 5...300 Hz contactor closed
Heat dissipation	3...8 W at 50/60 Hz for control circuit