

# LC1D1156R7

TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 115 A - 440 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 50/60 Hz
Control circuit voltage	440 V AC 50/60 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

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. 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. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

Associated fuse rating	250 A gG at $\leq$ 690 V coordination type 1 for power circuit 200 A gG at $\leq$ 690 V coordination type 2 for power circuit 10 A gG for signalling circuit
Average impedance	0.6 mOhm at 50 Hz - lth 200 A for power circuit
[U <sub>i</sub> ] 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 $\varnothing$ 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 $\leq$ 60 °C

## Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.3...0.5 U <sub>c</sub> at 55 °C drop-out 50/60 Hz 0.8...1.15 U <sub>c</sub> at 55 °C operational 50/60 Hz
Inrush power in VA	280...350 VA at 20 °C (cos $\varphi$ 0.8) 60 Hz 280...350 VA at 20 °C (cos $\varphi$ 0.8) 50 Hz
Hold-in power consumption in VA	2...18 VA at 20 °C (cos $\varphi$ 0.3) 60 Hz 2...18 VA at 20 °C (cos $\varphi$ 0.3) 50 Hz
Heat dissipation	3...8 W at 50/60 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 Uc
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