

# LC1D40P7

## CONTACTOR 600VAC 40AMP IEC +OPTIONS



### Main

Range of product	TeSys D
Range	TeSys
Product or component type	Contacteur
Device short name	LC1D
Contactor application	Motor control Resistive load
Utilisation category	AC-3 AC-4 AC-1 AC-2
Control circuit type	AC at 50/60 Hz
Poles description	3P
Pole contact composition	3 NO
[Ie] rated operational current	40 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 60 A (at <60 °C) at <= 440 V AC AC-1 for power circuit
Motor power kW	18.5 kW at 380...400 V AC 50 Hz (AC-3) 22 kW at 500 V AC 50 Hz (AC-3) 30 kW at 660...690 V AC 50 Hz (AC-3) 22 kW at 1000 V AC 50 Hz (AC-3) 22 kW at 415 V AC 50 Hz (AC-3) 22 kW at 440 V AC 50 Hz (AC-3) 11 kW at 220...230 V AC 50 Hz (AC-3) 9 kW at 400 V AC 50 Hz (AC-4)

### Complementary

Coil technology	Without built-in bidirectional peak limiting diode suppressor
Protective cover	With
Motor power hp	3 Hp at 115 V AC 60 Hz for 1 phase motors 5 Hp at 230/240 V AC 60 Hz for 1 phase motors 10 Hp at 200/208 V AC 60 Hz for 3 phases motors 10 Hp at 230/240 V AC 60 Hz for 3 phases motors 30 Hp at 460/480 V AC 60 Hz for 3 phases motors 30 hp at 575/600 V AC 60 Hz for 3 phases motors
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
[Uc] control circuit voltage	230 V AC 50/60 Hz
Control circuit voltage limits	Drop-out: 0.3...0.6 Uc at 50/60 Hz (at <60 °C) Operational: 0.8...1.1 Uc at 50 Hz (at <60 °C) Operational: 0.85...1.1 Uc at 60 Hz (at <60 °C)
[Ui] rated insulation voltage	Control circuit: 600 V CSA certified Control circuit: 600 V UL certified Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Control circuit: 690 V conforming to IEC 60947-1 Power circuit: 690 V conforming to IEC 60947-1
[Uimp] rated impulse withstand voltage	8 kV conforming to IEC 60947
Overvoltage category	III

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.

Mounting support	Rail Plate
Flame retardance	V1 conforming to UL 94
Connections - terminals	Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> rigid Control circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> rigid Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> flexible without cable end Control circuit: screw clamp terminals 1 cable(s) 1...2.5 mm <sup>2</sup> flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm <sup>2</sup> flexible with cable end Power circuit: screw terminals 1 cable(s) 2.5...25 mm <sup>2</sup> rigid Power circuit: screw terminals 2 cable(s) 2.5...16 mm <sup>2</sup> rigid Power circuit: screw terminals 1 cable(s) 2.5...25 mm <sup>2</sup> flexible without cable end Power circuit: screw terminals 2 cable(s) 2.5...16 mm <sup>2</sup> flexible without cable end Power circuit: screw terminals 1 cable(s) 2.5...25 mm <sup>2</sup> flexible with cable end Power circuit: screw terminals 2 cable(s) 2.5...10 mm <sup>2</sup> flexible with cable end
Tightening torque	Control circuit: 1.2 N.m - on screw clamp terminal - with screwdriver flat Ø 6 mm Control circuit: 1.2 N.m - on screw clamp terminal - with screwdriver Philips No 2 Power circuit: 5 N.m - on screw terminal - with screwdriver flat Ø 6 to Ø 8 mm
[Ue] rated operational voltage	Power circuit: ≤ 690 V AC 25...400 Hz
[Ith] conventional free air thermal current	10 A (at 60 °C) for control circuit 60 A (at 60 °C) for power circuit
Irms rated making capacity	800 A at 440 V for power circuit conforming to IEC 60947 140 A AC for control circuit conforming to IEC 60947-5-1
Rated breaking capacity	800 A 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 80 A gG at ≤ 690 V coordination type 1 for power circuit 80 A gG at ≤ 690 V coordination type 2 for power circuit
Power dissipation per pole	5.4 W AC-1 2.4 W AC-3
Inrush power in VA	140 VA cos phi 0.75 (at 20 °C) 160 VA cos phi 0.75 (at 20 °C)
Hold-in power consumption in VA	13 VA 60 Hz cos phi 0.3 (at 20 °C) 15 VA 50 Hz cos phi 0.3 (at 20 °C)
Operating time	4...19 ms opening 12...26 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	6000000 cycles
Maximum operating rate	3600 cyc/h 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	127 mm
Width	75 mm
Depth	119 mm
Net weight	1.4 kg

## Environment

Standards	EN 60947-5-1 EN 60947-4-1 IEC 60947-4-1 UL 508 CSA C22.2 No 14 IEC 60947-5-1
Product certifications	UL BV CCC CSA RINA GOST GL LROS (Lloyds register of shipping) DNV
IP degree of protection	IP2x conforming to IEC 60529 IP2x conforming to VDE 0106
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
Fire resistance	850 °C conforming to IEC 60695-2-1
Shock resistance	10 gn contactor opened 15 gn contactor closed
Vibration resistance	2 gn 5...300 Hz contactor opened 4 gn 5...300 Hz contactor closed
Heat dissipation	4...5 W at 50/60 Hz for control circuit

## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Compliant <a href="#">EU RoHS Declaration</a>
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS Declaration</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End Of Life Information</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

## Contractual warranty

Warranty	18 months
----------	-----------