

## Product data sheet

### Characteristics

# LC1D40008M6

contactor TeSys Deca - 4 poles (2NO + 2NC) -  
AC-1 440V 60 A - coil 220 V AC

### Main

Range	TeSys
Range of product	TeSys D
Product or component type	Contactor
Device short name	LC1D
Contactor application	Resistive load
Utilisation category	AC-1
Poles description	4P
[Ue] rated operational voltage	Power circuit: ≤ 690 V AC 25...400 Hz
[Ie] rated operational current	60 A (at ≤60 °C) at ≤ 440 V AC AC-1 for power circuit
[Uc] control circuit voltage	220 V AC 60 Hz

### Complementary

Motor power kW	18.5 kW at 380...400 V AC 50/60 Hz 22 kW at 500 V AC 50/60 Hz 30 kW at 660...690 V AC 50/60 Hz 22 kW at 415...440 V AC 50/60 Hz 11 kW at 220...230 V AC 50/60 Hz
Motor power hp	10 Hp at 200/208 V AC 60 Hz for 3 phases motors conforming to CSA 10 Hp at 200/208 V AC 60 Hz for 3 phases motors conforming to UL 10 Hp at 230/240 V AC 60 Hz for 3 phases motors conforming to CSA 10 Hp at 230/240 V AC 60 Hz for 3 phases motors conforming to UL 3 Hp at 115 V AC 60 Hz for 1 phase motors conforming to CSA 3 Hp at 115 V AC 60 Hz for 1 phase motors conforming to UL 30 Hp at 460/480 V AC 60 Hz for 3 phases motors conforming to CSA 30 Hp at 460/480 V AC 60 Hz for 3 phases motors conforming to UL 30 Hp at 575/600 V AC 60 Hz for 3 phases motors conforming to CSA 30 Hp at 575/600 V AC 60 Hz for 3 phases motors conforming to UL 5 Hp at 230/240 V AC 60 Hz for 1 phase motors conforming to CSA 5 hp at 230/240 V AC 60 Hz for 1 phase motors conforming to UL
Compatibility code	LC1D
Pole contact composition	2 NO + 2 NC
Protective cover	With
[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	140 A AC for control circuit conforming to IEC 60947-5-1 800 A at 440 V for power circuit conforming to IEC 60947
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
Average impedance	1.5 mOhm - Ith 60 A 50 Hz for power circuit
Power dissipation per pole	5.4 W AC-1
[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
Overvoltage category	III

[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947
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
Control circuit type	AC at 60 Hz
Coil technology	Without built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.85...1.1 U <sub>c</sub> (55 °C):operational AC 60 Hz 0.3...0.6 U <sub>c</sub> (60 °C):drop-out AC 60 Hz
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)
Heat dissipation	4...5 W at 50/60 Hz for control circuit
Operating time	12...26 ms closing 4...19 ms opening
Maximum operating rate	3600 cyc/h 60 °C
Connections - terminals	Control circuit: screw clamp terminal 1 1...4 mm <sup>2</sup> - cable stiffness: solid without cable end Control circuit: screw clamp terminal 2 1...4 mm <sup>2</sup> - cable stiffness: solid without cable end Control circuit: screw clamp terminal 1 1...2.5 mm <sup>2</sup> - cable stiffness: flexible without cable end Control circuit: screw clamp terminal 2 1...2.5 mm <sup>2</sup> - cable stiffness: flexible without cable end Control circuit: screw clamp terminal 1 1...4 mm <sup>2</sup> - cable stiffness: flexible with cable end Control circuit: screw clamp terminal 2 1...4 mm <sup>2</sup> - cable stiffness: flexible with cable end Power circuit: screw clamp terminal 1 2.5...35 mm <sup>2</sup> - cable stiffness: solid with cable end Power circuit: screw clamp terminal 2 2.5...35 mm <sup>2</sup> - cable stiffness: solid with cable end Power circuit: screw clamp terminal 1 2.5...35 mm <sup>2</sup> - cable stiffness: flexible without cable end Power circuit: screw clamp terminal 2 2.5...25 mm <sup>2</sup> - cable stiffness: flexible without cable end Power circuit: screw clamp terminal 1 2.5...35 mm <sup>2</sup> - cable stiffness: flexible with cable end Power circuit: screw clamp terminal 2 2.5...35 mm <sup>2</sup> - cable stiffness: flexible with cable end
Tightening torque	Control circuit: 1.7 N.m - on screw clamp terminal - with screwdriver flat Ø 6 mm Control circuit: 1.7 N.m - on screw clamp terminal - with screwdriver Philips No 2 Power circuit: 5 N.m - on screw clamp terminal - with screwdriver flat Ø 6 mm Power circuit: 5 N.m - on screw clamp terminal - with screwdriver flat Ø 8 mm
Auxiliary contacts type	Type mirror contact 1 NC conforming to IEC 60947-4-1 Type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1
Minimum switching voltage	17 V for control circuit
Minimum switching current	5 mA for control circuit
Insulation resistance	> 10 MOhm 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
Mounting support	Rail Plate

## Environment

Standards	UL 508 IEC 60947-5-1 IEC 60947-4-1 CSA C22.2 No 14 EN 60947-5-1 EN 60947-4-1
Product certifications	CCC[RETURN]BV[RETURN]CSA[RETURN]RINA[RETURN]DNV[RETURN]LROS (Lloyds register of shipping)[RETURN]GOST[RETURN]GL[RETURN]UL
IP degree of protection	IP2X conforming to IEC 60529 IP2X conforming to VDE 0106
Climatic withstand	Conforming to IACS E10 exposure to damp heat
Permissible ambient air temperature around the device	-60...80 °C storage -40...60 °C operation 60...70 °C with derating
Operating altitude	3000 m without derating
Fire resistance	850 °C conforming to IEC 60695-2-1
Flame retardance	V1 conforming to UL 94
Mechanical robustness	Shocks contactor closed (10 Gn) Shocks contactor opened (8 gn) Vibrations contactor opened (2 Gn, 5...300 Hz) Vibrations contactor closed (4 Gn, 5...300 Hz)
Height	127 mm
Width	85 mm
Depth	125 mm
Net weight	1.44 kg

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1

## Contractual warranty

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