

Product data sheet

Specifications



CONTACTOR 600VAC 40AMP IEC +OPTIONS

LC1D40M7

Main

Range of product	TeSys D TeSys Deca
Range	TeSys
Product or component type	Contactors
Device short name	LC1D
Contactors application	Motor control Resistive load
Utilisation category	AC-1 AC-4 AC-2 AC-3 AC-3e
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 40 A (at <60 °C) at <= 440 V AC AC-3e 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) 18.5 kW at 380...400 V AC 50 Hz (AC-3e) 22 kW at 500 V AC 50 Hz (AC-3e) 30 kW at 660...690 V AC 50 Hz (AC-3e) 22 kW at 1000 V AC 50 Hz (AC-3e) 22 kW at 415 V AC 50 Hz (AC-3e) 22 kW at 440 V AC 50 Hz (AC-3e) 11 kW at 220...230 V AC 50 Hz (AC-3e)

Complementary

Coil technology	Without built-in bidirectional peak limiting diode suppressor
Front 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	220 V AC 50/60 Hz
Control circuit voltage limits	0.3...0.6 Uc (-40...70 °C):drop-out AC 50/60 Hz 0.8...1.1 Uc (-40...60 °C):operational AC 50 Hz 0.85...1.1 Uc (-40...60 °C):operational AC 60 Hz 1...1.1 Uc (60...70 °C):operational AC 50/60 Hz
[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
Mounting support	Plate Rail
Connections - terminals	Control circuit: screw clamp terminals 1 cable(s) 1...4 mm²rigid Control circuit: screw clamp terminals 2 cable(s) 1...4 mm²rigid Control circuit: screw clamp terminals 1 cable(s) 1...4 mm²flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm²flexible without cable end Control circuit: screw clamp terminals 1 cable(s) 1...2.5 mm²flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm²flexible with cable end Power circuit: screw terminals 1 cable(s) 2.5...25 mm²rigid Power circuit: screw terminals 2 cable(s) 2.5...16 mm²rigid Power circuit: screw terminals 1 cable(s) 2.5...25 mm²flexible without cable end Power circuit: screw terminals 2 cable(s) 2.5...16 mm²flexible without cable end Power circuit: screw terminals 1 cable(s) 2.5...25 mm²flexible with cable end Power circuit: screw terminals 2 cable(s) 2.5...10 mm²flexible 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 terminal - with screwdriver flat Ø 6 to Ø 8 mm Control circuit: 1.7 N.m - on lugs - with screwdriver pozidriv No 2
[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 2.4 W AC-3e
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
Terminals description ISO n°1	(21-22)NC (13-14)NO

	(A1-A2)CO
Height	127 mm
Width	75 mm
Depth	119 mm
Net weight	1.4 kg

Environment

Standards	EN 60947-4-1 IEC 60947-5-1 CSA C22.2 No 14 EN 60947-5-1 IEC 60947-4-1 UL 508
Product certifications	LROS (Lloyds register of shipping) DNV GL BV CCC RINA CSA UL GOST UKCA
IP degree of protection	IP2x conforming to IEC 60529 IP2x conforming to VDE 0106
Ambient air temperature for operation	-40...60 °C 60...70 °C with derating
Ambient air temperature for storage	-60...80 °C
Operating altitude	0...3000 m
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

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	1.45 kg
Package 1 Height	9.5 cm
Package 1 width	13.2 cm
Package 1 Length	14 cm
Unit Type of Package 2	S02
Number of Units in Package 2	5
Package 2 Weight	7.555 kg
Package 2 Height	15 cm
Package 2 width	30 cm
Package 2 Length	40 cm

Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	REACH Declaration

REACH free of SVHC	Yes
EU RoHS Directive	Compliant EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS declaration Pro-active China RoHS declaration (out of China RoHS legal scope)
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
PVC free	Yes
California proposition 65	WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov
Contractual warranty	
Warranty	18 months