

Product data sheet

Characteristics

LC1D40M7

Contacteur, TeSys Deca, 3P(3NO), AC-3/AC-3e/
 $\leq 440\text{V}$ 40A, 220V AC 50/60Hz coil, screw
 clamp terminals



Main

Range	TeSys
Range of product	TeSys Deca
Product or component type	Contacteur
Device short name	LC1D
Contacteur application	Motor control Resistive load
Utilisation category	AC-1 AC-4 AC-2 AC-3 AC-3e
Poles description	3P
[Ue] rated operational voltage	Power circuit: $\leq 690\text{ V AC}$ 25...400 Hz
[Ie] rated operational current	40 A (at $\leq 60^\circ\text{C}$) at $\leq 440\text{ V AC}$ AC-3 for power circuit 60 A (at $\leq 60^\circ\text{C}$) at $\leq 440\text{ V AC}$ AC-1 for power circuit 40 A (at $\leq 60^\circ\text{C}$) at $\leq 440\text{ V AC}$ AC-3e for power circuit
[Uc] control circuit voltage	220 V AC 50/60 Hz

Complementary

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)
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
Compatibility code	LC1D
Pole contact composition	3 NO
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	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
[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	8 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 50/60 Hz
Coil technology	Without built-in bidirectional peak limiting diode suppressor
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
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	4...19 ms opening 12...26 ms closing
Maximum operating rate	3600 cyc/h 60 °C
Connections - terminals	Control circuit: screw clamp terminals 1 1...4 mm² - cable stiffness: rigid Control circuit: screw clamp terminals 2 1...4 mm² - cable stiffness: rigid Control circuit: screw clamp terminals 1 1...4 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 1...4 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 1...2.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 1...2.5 mm² - cable stiffness: flexible with cable end Power circuit: screw terminals 1 2.5...25 mm² - cable stiffness: rigid Power circuit: screw terminals 2 2.5...16 mm² - cable stiffness: rigid Power circuit: screw terminals 1 2.5...25 mm² - cable stiffness: flexible without cable end Power circuit: screw terminals 2 2.5...16 mm² - cable stiffness: flexible without cable end Power circuit: screw terminals 1 2.5...25 mm² - cable stiffness: flexible with cable end Power circuit: screw terminals 2 2.5...10 mm² - 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 terminal - with screwdriver flat Ø 6 to Ø 8 mm Control circuit: 1.7 N.m - on lugs - with screwdriver pozidriv No 2
Auxiliary contact composition	1 NO + 1 NC
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
Terminals description ISO n°1	(21-22)NC (13-14)NO (A1-A2)CO
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	Plate Rail






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) [RETURN]DNV[RETURN]GL[RETURN]BV[RETURN]CCC[RETURN]RINA[RETURN]CSA[RET
IP degree of protection	IP2X conforming to IEC 60529 IP2X conforming to VDE 0106
Climatic withstand	Conforming to IACS E10 exposure to damp heat
Operating altitude	0...3000 m
Fire resistance	850 °C conforming to IEC 60695-2-1
Flame retardance	V1 conforming to UL 94
Mechanical robustness	Shocks contactor opened (10 Gn for 11 ms) Shocks contactor closed (15 Gn for 11 ms) Vibrations contactor opened (2 Gn, 5...300 Hz) Vibrations contactor closed (4 Gn, 5...300 Hz)
Height	127 mm
Width	75 mm
Depth	119 mm
Net weight	1.4 kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	9.5 cm
Package 1 Width	13.2 cm
Package 1 Length	14.0 cm
Package 1 Weight	1.45 kg
Unit Type of Package 2	S02
Number of Units in Package 2	5
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	7.555 kg

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
China RoHS Regulation	 China RoHS Declaration
RoHS exemption information	 Yes
Environmental Disclosure	 Product Environmental Profile
Circularity Profile	No need of specific recycling operations
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
PVC free	Yes

Contractual warranty

Warranty	18 months
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