Product datasheet

Specifications

CONTACTOR 600VAC 50AMP IEC +OPTIONS

LC1D50F7

Discontinued

Main

Range	TeSys
Range Of Product	TeSys Deca
Product Or Component Type	Contactor
Device Short Name	LC1D
Contactor Application	Resistive load Motor control
Utilisation Category	AC-1 AC-4 AC-3 AC-3e AC-1
Poles Description	3P
[Ue] Rated Operational Voltage	Power circuit: <= 690 V AC 25...400 Hz
[Ie] Rated Operational Current	80 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 50 A (at <60 °C) at <= 440 V AC AC-3e for power circuit 50 A (at <60 °C) at <= 440 V AC AC-3 for power circuit
[Uc] Control Circuit Voltage	110 V DC

Complementary

Motor Power Kw	25 kW at 415 V AC 50 Hz (AC-3) 30 kW at 440 V AC 50 Hz (AC-3) 30 kW at 500 V AC 50 Hz (AC-3) 33 kW at 660...690 V AC 50 Hz (AC-3) 15 kW at 220...230 V AC 50 Hz (AC-3) 11 kW at 400 V AC 50 Hz (AC-4) 30 kW at 1000 V AC 50 Hz (AC-3) 22 kW at 380...400 V AC 50 Hz (AC-3e) 25 kW at 415 V AC 50 Hz (AC-3e) 30 kW at 440 V AC 50 Hz (AC-3e) 30 kW at 500 V AC 50 Hz (AC-3e) 33 kW at 660...690 V AC 50 Hz (AC-3e) 15 kW at 220...230 V AC 50 Hz (AC-3e) 30 kW at 1000 V AC 50 Hz (AC-3e) 25 kW at 415 V AC 50 Hz 22 kW at 380...400 V AC 50 Hz
Motor Power Hp	7.5 hp at 230/240 V AC 60 Hz for 1 phase motors 15 hp at 200/208 V AC 60 Hz for 3 phases motors 15 hp at 230/240 V AC 60 Hz for 3 phases motors 40 hp at 460/480 V AC 60 Hz for 3 phases motors 40 hp at 575/600 V AC 60 Hz for 3 phases motors 3 hp at 115 V AC 60 Hz for 1 phase motors
Compatibility Code	LC1D
Pole Contact Composition	3 NO

Protective Cover	With
[Ith] Conventional Free Air Thermal Current	80 A (at 60 °C) for power circuit 10 A (at 60 °C) for control circuit
Irms Rated Making Capacity	140 A AC for control circuit conforming to IEC 60947-5-1 900 A at 440 V for power circuit conforming to IEC 60947 250 A DC for control circuit conforming to IEC 60947-5-1
Rated Breaking Capacity	900 A at 440 V for power circuit conforming to IEC 60947
Associated Fuse Rating	100 A gG at <= 690 V coordination type 1 for power circuit 100 A gG at <= 690 V coordination type 2 for power circuit conforming to IEC 60947-5-1 10 A gG for control circuit conforming to IEC 60947-5-1
Power Dissipation Per Pole	9.6 W AC-1 3.7 W AC-3e 3.7 W AC-3
[Ui] Rated Insulation Voltage	Control circuit: 600 V UL certified Power circuit: 600 V CSA certified Power circuit: 600 V UL certified conforming to IEC 60947-1 Control circuit: 690 V conforming to IEC 60947-1 Power circuit: 690 V CSA certified conforming to IEC 60947-1 Control circuit: 600 V CSA certified
Overvoltage Category	III
[Uimp] Rated Impulse Withstand Voltage	8 kV conforming to IEC 60947
Safety Reliability Level	B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1
Mechanical Durability	10000000 cycles
Control Circuit Type	DC standard
Coil Technology	Built-in bidirectional peak limiting diode suppressor
Control Circuit Voltage Limits	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 0.75...1.25 Uc (-40…60 °C):operational DC 0.1...0.3 Uc (-40…70 °C):drop-out DC
Inrush Power In Va	160 VA cos phi 0.75 (at 20 °C)
Inrush Power In W	19 W (at 20 °C)
Hold-In Power Consumption In Va	15 VA 50 Hz cos phi 0.3 (at 20 °C)
Hold-In Power Consumption In W	7.4 W at 20 °C
Operating Time	12...26 ms closing 50 ms closing 20 ms opening
Time Constant	34 ms
Maximum Operating Rate	3600 cyc/h 60 °C

Connections - Terminals	Control circuit: screw clamp terminals 2 1…4 mm² - cable stiffness: rigid without cable end 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 without cable end 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 Control circuit: screw clamp terminals 2 1…4 mm² - cable stiffness: rigid Control circuit: screw clamp terminals 1 1…4 mm² - cable stiffness: rigid
Tightening Torque	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 screw clamp terminal - with screwdriver pozidriv No 2 Control circuit: 1.7 N.m - on screw clamp terminal - with screwdriver flat Ø 6 mm
Auxiliary Contact Composition	1 NO + 1 NC
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 energisation between NC and NO contacts 1.5 ms on de-energisation between NC and NO contacts
Mounting Support	Rail Rail

Environment

Standards	CSA C22.2 No 14 IEC 60947-4-1 IEC 60947-5-1 EN 60947-5-1 EN 60947-4-1
Product Certifications	GL LROS (Lloyds register of shipping) RINA CCC BV DNV GOST CSA UKCA GL
Ip Degree Of Protection	IP2X conforming to VDE 0106 IP2X conforming to IEC 60529
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 closed (15 Gn for 11 ms) Vibrations contactor opened (2 Gn, 5...300 Hz) Vibrations contactor closed (4 Gn, 5...300 Hz) Shocks contactor opened (10 Gn for 11 ms)

Height	127 mm
Width	85 mm
Depth	176 mm
Net Weight	2.185 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	1.448 kg
Unit Type Of Package 2	S02
Number Of Units In Package 2	5
Package 2 Height	15 cm
Package 2 Width	30 cm
Package 2 Length	40 cm
Package 2 Weight	7.538 kg

Contractual warranty

Warranty	18 months

Sustainability

Green Premium™ label is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO_2 products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >

Transparency

RoHS/REACh

Well-being performance

Reach Free Of Svhc	
Toxic Heavy Metal Free	
Mercury Free	
Rohs Exemption Information	Yes
Pvc Free	

Certifications & Standards

Reach Regulation	REACh Declaration
Eu Rohs Directive	Compliant EU RoHS Declaration
China Rohs Regulation	China RoHS declaration Pro-active China RoHS declaration (out of China RoHS legal scope)
Environmental Disclosure	Product Environmental Profile
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
Circularity Profile	No need of specific recycling operations