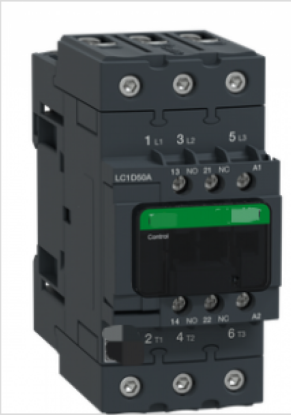

CONTACTOR LC1-D50AM7

URL:https://www.sxplc.com/index.php?route=product/product&product_id=5494

Product data sheet

Areas of application for contactors Used in non-inductive or slightly inductive loads, resistance furnaces

For AC loads with a power factor greater than or equal to 0.95.

Category of use AC-4

AC-1

AC-3

AC-3e

Number of poles 3P

Rated operating voltage [Ue] Power circuit: <= 690 V AC 25...400 Hz. .400 Hz

Power circuit: <= 300 V DC

Rated operating current [Ie] 50 A (at operating temperature <= 60 °C) at operating voltage <= <= 440 V AC AC-3 for power supply circuits

80 A (at operating temperatures <= 60 °C) at operating voltages <= <= 440 V AC AC-1 for power circuits

50 A (at operating temperature <= 60 °C) when operating voltage <= <= 440 V AC AC-3e for power supply circuits

[Uc] control circuit voltage 220 V AC 50/60 Hz

Additional information

Motor power (kW) 15 kW When operating voltage <= 220.... .230 V AC 50/60 Hz (AC-3)

22 kW when operating voltage <= 380.... .400 V AC 50/60 Hz (AC-3)

30 kW at operating voltages <= 500 V AC 50/60 Hz (AC-3)

33 kW when operating voltage <= 660... .690 V AC 50/60 Hz (AC-3) .690 V AC 50/60 Hz (AC-3)

25 kW at operating voltages <= 415 V AC 50/60 Hz (AC-3)

30 kW at operating voltage <= 440 V AC 50/60 Hz (AC-3)

11 kW at operating voltage <= 400 V AC 50/60 Hz (AC-4)

15 kW at operating voltages <= 220....230 V AC 50/60 Hz (AC-4) .230 V AC 50/60 Hz (AC-3e)

22 kW at operating voltages <= 380... .400 V AC 50/60 Hz (AC-3e) .400 V AC 50/60 Hz (AC-3e)

30 kW at operating voltages <= 500 V AC 50/60 Hz (AC-3e)

33 kW at operating voltages <= 660... .690 V AC 50/60 Hz (AC-3e) .690 V AC 50/60 Hz (AC-3e)

25 kW at operating voltages <=415 V AC 50/60 Hz (AC-3e)

30 kW at operating voltage <= 440 V AC 50/60 Hz (AC-3e)

Motor power 3 hp at operating voltage <= 115 V AC 50/60 Hz for 1-phase motors

7.5 hp at operating voltage <= 230/240 V AC 50/60 Hz for 1-phase motors

15 hp when operating voltage <= 200/208 V AC 50/60 Hz for 3-phase motors

15 hp when operating voltage <= 230/240 V AC 50/60 Hz for 3-phase motors

40 hp when operating voltage <= 460/480 V AC 50/60 Hz for 3-phase motors

40 hp at operating voltage <= 575/600 V AC 50/60 Hz for 3-phase motors

Model LC1D

Circuit contact type 3 NO

Protective cover with

Conventional heating current [Ith] 10 A (at operating temperature <= 60 °C) for signaling circuits

80 A (at operating temperatures <=60 °C) for power supply circuits

Product data sheet

Specification

Rated turn-on capacity [Irms] 140 A AC for signal circuits according to IEC 60947-5-1

250 A DC for signaling circuits in accordance with IEC 60947-5-1

900 A at operating voltage <= 440 V for power circuits in accordance with IEC 60947

Rated breaking capacity 900 A at operating voltage <= 440 V for power circuits in accordance with IEC 60947

Rated short-time withstand current [Icw] 400 A at operating temperature <= 40 °C for 10 s for power circuits

810 A at operating temperature <= 40 °C

84 A at operating temperatures <= 40 °C for 10 minutes for power circuits

208 A for 1 min at operating temperatures <= 40 °C for power circuits

100 A for 1 s for signaling circuits

120 A for 500 ms for signaling circuits

140 A for 100 ms for signal circuits

Fuses for use with relays 10 A gG for signal circuits in accordance with IEC 60947-5-1

100 A gG at operating voltages <=<= 690 V in conjunction with type 1, for power circuits

100 A gG at operating voltages <=<= 690 V with type 2, for power circuits

Average impedance 1.5 mΩ - Ith 80 A 50 Hz for power circuits

Power consumption per pole 3.7 W AC-3

9.6 W AC-1

3.7 W AC-3e

Rated insulation voltage [Ui] Power supply circuit: 600 V CSA approved

Power supply circuit: 600 V UL recognized

Signal circuit: 690 V in accordance with IEC 60947-1

Signal circuit: 600 V CSA approved

Signal circuits: 600 V UL recognized

Power circuits: 690 V according to IEC 60947-4-1

Overvoltage category III

Pollution class 3

Rated impulse withstand voltage [Uimp] 6 kV according to IEC 60947

Safety and reliability class B10d = 1369863 cycles Contactor with nominal load in accordance with EN/ISO 13849-1

B10d = 20000000 cycles Contactors for mechanical loads in accordance with EN/ISO 13849-1

Mechanical life 6 Mcycles

Electrical life 1.45 Mcycles 50 A AC-3 Ue <= 440 V

1.1 Mcycles 80 A AC-1 Ue <= 440 V

1.45 Mcycles 50 A AC-3e Ue <= 440 V

Control loop characteristics AC at 50/60 Hz Standard

Surge suppression module No built-in surge suppression module

Control voltage limits 0.3.... .0.6 Uc (-40...70 °C) Coil release AC 50/60 Hz

0.8... .1.1 Uc (-40...70 °C) .1.1 Uc (-40...60 °C) Coil release AC 50 Hz

0.85... .1.1 Uc (-40...60 °C) .1.1 Uc (-40...60 °C Coil suction AC 60 Hz)

1... .1.1 Uc (-40...60 °C) .1.1 Uc (60...70 °C Coil suction AC 50/60 Hz)

(Power consumption (VA) 140 VA 60 Hz cos phi 0.75 (at 20°C)

160 VA 50 Hz cos phi 0.75 (at 20 °C)

(~50 Hz Hold) Power Consumption (VA) 13 VA 60 Hz cos phi 0.3 (at 20 °C)

15 VA 50 Hz cos phi 0.3 (at 20 °C)

Thermal dissipation 4...5 W at 50/60 Hz

Operating time 4... .19 ms .19 ms breaking

12... .26 ms Closing 12...26 ms closing

Max. operating frequency 3600 operations/h at 60 °C

Control circuits: screwed 2 1...2.5 mm² Cable type: flexible cord with terminal block

Control circuits: screwed 1 1...4 mm² Cable type: flexible cord without terminals

Control circuits: screw fastening 2 1...4 mm² Cable type: cord without terminals

Control circuits: screwed 1 1...4 mm² Cable type: cord with terminals

Control circuits: screw fastening 1 1...4 mm² Cable type: hardwire without terminals

Control circuits: screw fastening 2 1...4 mm² Cable type: hardwire without terminals

Power supply circuits: EverLink BTR terminal block 1 1...35 mm² Cable type: flexible cord without terminal block

Power supply circuits: EverLink BTR terminal block 2 1...25 mm² Cable type: Flex cable with terminal block

Power supply circuit: EverLink BTR terminal block 1 1...35 mm² Cable type: Hardwire without terminal block

Power supply circuits: EverLink BTR terminal block 2 1...25 mm² Cable type: Hardwire without terminal block

Tightening torque Control circuits: 1.7 N.m via EverLink BTR terminal block with screwdriver Ø 6 flat

Control circuit: 1.7 N.m via EverLink BTR terminal blocks with screwdriver No 2 Phillips screws

Power supply: 8 N.m via EverLink BTR terminal blocks Cable 25...35 mm² hexagonal 4 mm

Power supply circuit: 5 N.m via EverLink BTR terminal block cable 1...25 mm² hexagonal 4 mm

Control circuit: 1.7 N.m via EverLink BTR terminal blocks with screwdriver pozidriv No 2

Power supply circuit: 2.5 N.m via EverLink BTR terminal block with screwdriver pozidriv No 2

Auxiliary contact type 1 NO + 1 NC

Auxiliary contact type Type Mechanical connection 1 NO + 1 NC in accordance with IEC 60947-5-1

Type Mirrored to the state of the main contact 1 NC in accordance with IEC 60947-4-1

Signal circuit frequency 25.... .400 Hz

Minimum switching voltage 17 V for signal circuits

Minimum switching current [Imin] 5 mA for signaling circuits

Insulation resistance > 10 MΩ for signal circuits

Non-repeat time 1.5 ms Power loss between NC and NO contacts

1.5 ms Between NC and NO contacts for power gain

Mounting method Base plate mounting

Rail mounting

Standard CSA C22.2 No.

Standard CSA C22.2 No 14

EN 60947-4-1

EN 60947-5-1

IEC 60947-4-1

IEC 60947-5-1

UL 508

IEC 60335-1

Product certificates RINA

DNV

CSA

GOST

BV

GL

UL

CCC

LROS (Lloyds register of shipping)

IP protection class IP20 Front panel according to IEC 60529

Protective measures TH in accordance with IEC 60068-2-30

Weather resistance Conforms to IACS E10 Exposure to hot and humid conditions

Conforms to IEC 60947-1 Annex Q category D for exposure to hot and humid conditions.

Ambient air temperature -40...60 °C

60...70 °C with reduced capacity

Operating altitude 0...3000 m ...3000 m

Fire resistance and resistance to abnormally high temperatures 850 °C according to IEC 60695-2-1

Flame retardant V1 according to UL 94

Shock and vibration resistance Vibration resistance Contact opening (2 gn (5...300 Hz)) . 300 Hz))

Vibration Resistant Contact closure (4 gn (5…300 Hz)) .300 Hz))

Shock resistance with contact closed (15 gn (11ms))

Shock resistance with open contact (10 gn (11ms))

Height 122 mm

Width 55 mm

Depth 120 mm

Net weight 0.855 kg