CONTACTOR LC1-D80M7

URL:https://www.sxplc.com/contactor-lc1-d80m7

Product data sheet

Areas of application for contactors for AC loads with a power factor greater than or equal to 0.95.

For non-inductive or slightly inductive loads, resistance furnaces.

Category of use AC-3

AC-3e

AC-4

AC-1

Number of poles 3P

Rated operating voltage [Ue] Power circuit: <= 300 V DC 25...400 Hz. .400 Hz

Power circuit: <= 690 V AC

Rated operating current [Ie] 125 A (at operating temperature <= 60 °C) at operating voltage <= <= 440 V AC AC-1 for power supply circuits

80 A (at operating temperatures <= 60 °C) at operating voltages <= <= 440 V AC AC-3 for power supply circuits

80 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) 22 kW When operating voltage <= 220.... .230 V AC 50/60 Hz (AC-3)

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

45 kW when operating voltage <=415.... .440 V AC 50/60 Hz (AC-3)

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

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

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

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

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

45 kW at operating voltages <=415....440 V AC 50/60 Hz (AC-3e) .440 V AC 50/60 Hz (AC-3e)

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

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

Motor power 7.5 hp at operating voltage <= 120 V AC 50/60 Hz for 1-phase motors

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

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

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

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

60 hp when 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

125 A (at operating temperature <=60 °C) for power supply circuits

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

250 A DC for signal circuits according to IEC 60947-5-1

1100 A at operating voltages <= 440 V for power circuits in accordance with IEC 60947

Rated breaking capacity 1100 A at operating voltage <= 440 V for power circuits in accordance with IEC 60947

Rated short-time withstand current [Icw] 640 A at operating temperature <= 40 °C for 10 s for power circuits

990 A at operating temperatures <= 40 °C for 1 s for power circuits

135 A at operating temperatures <= 40 °C for 10 min for power circuits

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

100 A for 1 s for signal 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

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

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

Average impedance 0.8 mΩ - Ith 125 A 50 Hz for power circuits

Power consumption per pole 5.1 W AC-3

12.5 W AC-1

5.1 W AC-3e

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

Power circuit: 600 V UL recognized

Power circuit: 1000 V in accordance with IEC 60947-4-1

Signal circuit: 690 V according to IEC 60947-1

Signal circuits: 600 V CSA certified

Signal circuits: 600 V UL recognized

Overvoltage category III

Pollution class 3

Rated impulse withstand voltage [Uimp] 8 kV according to IEC 60947

Safety and reliability class B10d = 1369863 cycles for contactors with nominal loads according to EN/ISO 13849-1

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

Mechanical life 4 Mcycles

Electrical life 0.8 Mcycles 125 A AC-1 Ue <= 440 V

1.5 Mcycles 80 A AC-3 Ue <= 440 V

1.5 Mcycles 80 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 0.85.... ...1.1 Uc (-40...55 °C) Coil engagement AC 60 Hz

0.3... .0.6 Uc (-40...55 °C) .0.6 Uc (-40...70 °C Coil release AC 50/60 Hz)

0.8... .1.1 Uc (-40...70 °C) .1.1 Uc (-40...55 °C Coil suction AC 50 Hz)

1... .1.1 Uc (55°C) .1.1 Uc (55...70 °C Coil engagement AC 50/60 Hz)

(Power consumption (VA) 245 VA 60 Hz cos phi 0.75 (at 20 °C)

245 VA 50 Hz cos phi 0.75 (at 20 °C)

(~50 Hz Hold) Power Consumption (VA) 26 VA 60 Hz cos phi 0.3 (at 20 °C)

26 VA 50 Hz cos phi 0.3 (at 20 °C)

Thermal dissipation 6...10 W at 50/60 Hz

Operating time 20... .35 ms .35 ms Closing

6... .20 ms 6...20 ms breaking

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

Wiring capacity Control circuits: Screw fastening 2 1...2.5 mm² Cable type

Control circuits: screw fastening 1 1...2.5 mm² Cable type: 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: 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 circuits: Terminals 1 4...50 mm² Cable type: Flexible cord without terminals

Power circuits: Terminal 2 4...25 mm² Cable type: flexible cord without terminals

Power circuit: Terminal 1 4...50 mm² Cable type: cord with terminal block

Power circuits: terminal block 2 4...16 mm² Cable type: cord with terminal block

Power circuits: Terminal 1 4...50 mm² Cable type: Hardwire without terminals

Power circuits: Terminal 2 4...25 mm² Cable type: Hardwire without terminals

Tightening torque Control circuits: 1.2 N.m by means of bolts Fastening with screwdriver Ø 6 plain

Control circuits: 1.2 N.m by means of bolt fastening with screwdriver No 2 Phillips screws

Power supply circuit: 12 N.m by means of terminal screwdriver Ø 6 - Ø 8 flat

Power supply: 12 N.m via terminal block Hexagonal 4 mm

Control circuits: 1.2 N.m by means of screws Fastening 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

Product certificates GOST

RINA

CCC

CSA

BV

DNV

GL

LROS (Lloyds register of shipping)

UL

IP protection class IP20 Front panel according to IEC 60529

Protection measure TH according to IEC 60068-2-30

Weather resistance in accordance with IACS E10 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

Resistance to fire and 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))

Shock Resistance Open Contact (8 gn (11ms))

Shock resistance Vibration resistance with contact closure (3 gn (5...300 Hz)) .300 Hz))

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

Height 127 mm

Width 85 mm

Depth 130 mm

Net weight 1.59 kg