

LC1N80E7N

Contactor, Easy TeSys

Control, LC1N, 3P(3NO), AC-3, ≤440V, 80A, 48V

AC coil, 50/60Hz, China



Main

Range	Easy TeSys
Range of product	Easy TeSys Control
Product or component type	Contactor
Device short name	LC1N
Contactor application	Motor control Resistive load
Utilisation category	AC-3 AC-1 AC-4
Poles description	3P
[Ue] rated operational voltage	Power circuit: ≤ 690 V AC 50/60 Hz
[Ie] rated operational current	80 A (at <60 °C) at ≤ 440 V AC AC-3 for power circuit 110 A (at <60 °C) at ≤ 440 V AC AC-1 for power circuit 37 A (at <60 °C) at ≤ 440 V AC AC-4 for power circuit
[Uc] control circuit voltage	48 V AC 50/60 Hz

Complementary

Motor power kW	22 kW at 220...230 V AC 50/60 Hz 37 kW at 380...400 V AC 50/60 Hz 45 kW at 415 V AC 50/60 Hz 45 kW at 500 V AC 50/60 Hz 45 kW at 660...690 V AC 50/60 Hz
Pole contact composition	3 NO
[Ith] conventional free air thermal current	110 A (at 60 °C) for power circuit
Irms rated making capacity	800 A at 380 V AC for power circuit conforming to IEC 60947-4-1 140 A AC for auxiliary contact conforming to IEC 60947-5-1
Rated breaking capacity	640 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	640 A 40 °C - 10 s for power circuit 320 A 40 °C - 60 s for power circuit 135 A 40 °C - 600 s for power circuit
Associated fuse rating	10 A gG at ≤ 690 V coordination type 1 for control circuit conforming to IEC 60947-5-1 160 A gG at ≤ 690 V coordination type 1 for power circuit
Average impedance	0.8 mOhm - Ith 110 A 50 Hz for power circuit
Power dissipation per pole	5.1 W AC-3 9.7 W AC-1
[Ui] rated insulation voltage	690 V conforming to IEC 60947-4-1
Overvoltage category	III
Pollution degree	3
[Uimp] rated impulse withstand voltage	6 kV coil not connected to the power circuit conforming to IEC 60947
Mechanical durability	3000000 cycles
Electrical durability	350000 Cycles AC-1 900000 Cycles AC-3 150000 cycles AC-4
Control circuit type	AC at 50/60 Hz

Control circuit voltage limits	0.85...1.1 U _c (-5...55 °C):operational 50/60 Hz 0.3...0.6 U _c (-5...55 °C):drop-out 50/60 Hz
Inrush power in VA	200 VA 50 Hz cos phi 0.75 (at 20 °C) 220 VA 60 Hz cos phi 0.75 (at 20 °C)
Hold-in power consumption in VA	22 VA 60 Hz cos phi 0.3 (at 20 °C) 20 VA 50 Hz cos phi 0.3 (at 20 °C)
Heat dissipation	6...10 W for control circuit
Operating time	20...35 ms on closing 6...30 ms on opening
Maximum operating rate	1200 cyc/h 60 °C
Connections - terminals	Control circuit: screw clamp terminals 1 1...4 mm ² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 1...4 mm ² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 1...2.5 mm ² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1...4 mm ² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 1...4 mm ² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 1 1...2.5 mm ² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 4...50 mm ² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 4...16 mm ² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 4...50 mm ² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 4...25 mm ² - cable stiffness: solid without cable end
Tightening torque	Control circuit: 1.2 N.m Power circuit: 12 N.m
Auxiliary contact composition	1 NO + 1 NC
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 guaranteed between NC and NO contact 1.5 ms on de-energisation guaranteed between NC and NO contact
Mounting support	Plate DIN rail

Environment

Standards	GB 14048.4 EN 60947-1 IEC 60947-1 IEC 60947-4-1 EN 60947-4-1
Product certifications	CCC
IP degree of protection	IP20 conforming to IEC 60529
Protective treatment	TH (pollution degree 3) conforming to IEC 60068
Permissible ambient air temperature around the device	-5...55 °C operation -60...80 °C storage -20...70 °C at U _c
Operating altitude	3000 m without derating
Fire resistance	850 °C conforming to IEC 60695-2-1
Mechanical robustness	Vibrations contactor open (1.5 Gn, 5...300 Hz) Vibrations contactor closed (3 Gn, 5...300 Hz) Shocks contactor open (6 Gn for 11 ms) Shocks contactor closed (7 Gn for 11 ms)
Height	127 mm
Width	85 mm
Depth	121 mm
Net weight	1.52 kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	15 cm
Package 1 Width	11.1 cm
Package 1 Length	16 cm
Package 1 Weight	1554.7 g

Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	REACH Declaration
EU RoHS Directive	Compliant with Exemptions
Mercury free	Yes
China RoHS Regulation	China RoHS Declaration
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End Of Life Information