Product datasheet

Specifications

Easy TeSys contactor 3P(3 NO) - AC-3 - <= 440 V 80A - 415 V AC coil

LC1E80N5

Main

Range	Easy TeSys
Range of product	Easy TeSys Control
Product or component type	Contactor
Device short name	LC1E
Contactor application	Motor control Resistive load
Utilisation category	AC-3 AC-3e AC-1
Poles description	3P
[Ue] rated operational voltage	Power circuit: <= 690 V AC 50/60 Hz
[Ie] rated operational current	80 A (at <55 °C) at <= 440 V AC AC-3 for power circuit 80 A (at <55 °C) at <= 440 V AC AC-3e for power circuit 110 A (at <55 °C) at <= 440 V AC AC-1 for power circuit
[Uc] control circuit voltage	415 V AC 50 Hz

Complementary

Motor power kW	22 kW at 220/230 V AC 50/60 Hz 37 kW at 380/400 V AC 45 kW at 415/440 V AC 45 kW at 500 V AC 45 kW at 660/690 V AC 45 kW at 660...690 V
Pole contact composition	3 NO
[Ith] conventional free air thermal current	110 A (at 55 °C) for power circuit
Irms rated making capacity	960 A at 440 V AC for power circuit conforming to IEC 60947-4-1
Rated breaking capacity	680 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
Control circuit type	AC at 50 Hz
Control circuit voltage limits	0.85...1.1 Uc (-5…55 °C):operational 50 Hz 0.3...0.6 Uc (-5…55 °C):drop-out 50 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	Power circuit: screw clamp terminals 1 4…50 mm² - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 2 4…16 mm² - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 1 4…25 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 4…50 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 4…25 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 4…50 mm² - cable stiffness: solid 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…2.5 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 1…4 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 1…4 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1…4 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 1…4 mm² - 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	DIN rail Plate

Environment

Standards	EN/IEC 60947-1 EN/IEC 60947-4-1 EN/IEC 60947-5-1 GB/T 14048.1 GB/T 14048.4 GB/T 14048.5 EN/IEC 60335-1:Clause 30.2 EN/IEC 60335-2-40:Annex JJ

Product certifications	CB Scheme CCC CE EAC
IP degree of protection	IP2X conforming to IEC 60529
Protective treatment	TH (pollution degree 3) conforming to IEC 60068-2-30
Permissible ambient air temperature around the device	-20…70 °C at Uc -60…80 °C storage -5…55 °C operation
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	14.8 cm
Package 1 Width	9.5 cm
Package 1 Length	13.5 cm
Package 1 Weight	1.52 kg
Unit Type of Package 2	S03
Number of Units in Package 2	5
Package 2 Height	30 cm
Package 2 Width	30 cm
Package 2 Length	40 cm
Package 2 Weight	8.313 kg

Contractual warranty

Warranty (in months)	18

Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

Environmental footprint

Total lifecycle Carbon footprint	1015
Environmental Disclosure	Product Environmental Profile

Use Better

Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
EU RoHS Directive	Compliant
SCIP Number	D35ed203-a299-4dcd-95fe-2a4557618485
REACh Regulation	REACh Declaration

Use Longer

Lifetime extension

Repair	No

Use Again

Repack and remanufacture

End of life manual availability	End of Life Information
Take-back	No
WEEE Label	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Technical Illustration

Assembly's dimensions