

Product datasheet

Specifications



Contactor, Easy TeSys
Control, LC1E,
3P(3NO), AC-3, <=440V, 80A, 48V AC
coil, 50/60Hz

LC1E80E7

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	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 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

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

[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 50/60 Hz
Control circuit voltage limits	0.85...1.1 Uc (-5...55 °C):operational 50/60 Hz 0.3...0.6 Uc (-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	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
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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	12.1 cm
Package 1 Width	8.5 cm
Package 1 Length	12.7 cm
Package 1 Weight	1.52 g

Contractual warranty

Warranty (in months)	18
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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	1 015 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Carbon footprint of the manufacturing phase [A1 to A3]	10 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	2 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	1 001 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	2 kg CO2 eq.

Use Better



Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
SCIP Number	D35ed203-a299-4dcd-95fe-2a4557618485
EU RoHS Directive	Compliant
REACH Regulation	Reference contains Substances of Very High Concern above the threshold

Use Longer



Lifetime extension

Repair	No
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Use Again

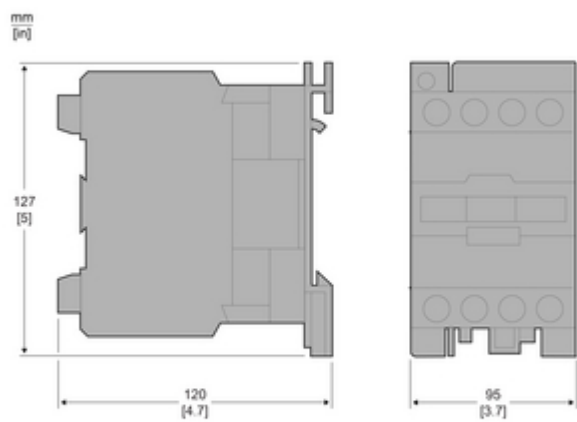


Repack and remanufacture

Recyclability potential, in %	64
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



Technical Illustration

Assembly's dimensions

