

# Product datasheet

Specifications



## Contactor, Easy TeSys Control, LC1E, 3P(3NO), AC-3, <=440V, 80A, 24V AC coil, 50/60Hz

LC1E80B7

### Main

Range	Easy TeSys
Range of product	Easy TeSys Control
Product or component type	Contacteur
Device short name	LC1E
Contacteur 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	24 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

<b>[Uimp] rated impulse withstand voltage</b>	6 kV coil not connected to the power circuit conforming to IEC 60947
<b>Mechanical durability</b>	3000000 cycles
<b>Electrical durability</b>	350000 cycles AC-1 900000 cycles AC-3
<b>Control circuit type</b>	AC at 50/60 Hz
<b>Control circuit voltage limits</b>	0.85...1.1 U <sub>c</sub> (-5...55 °C):operational 50/60 Hz 0.3...0.6 U <sub>c</sub> (-5...55 °C):drop-out 50/60 Hz
<b>Inrush power in VA</b>	200 VA 50 Hz cos phi 0.75 (at 20 °C) 220 VA 60 Hz cos phi 0.75 (at 20 °C)
<b>Hold-in power consumption in VA</b>	22 VA 60 Hz cos phi 0.3 (at 20 °C) 20 VA 50 Hz cos phi 0.3 (at 20 °C)
<b>Heat dissipation</b>	6...10 W for control circuit
<b>Operating time</b>	20...35 ms on closing 6...30 ms on opening
<b>Maximum operating rate</b>	1200 cyc/h 60 °C
<b>Connections - terminals</b>	Power circuit: screw clamp terminals 1 4...50 mm <sup>2</sup> - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 2 4...16 mm <sup>2</sup> - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 1 4...25 mm <sup>2</sup> - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 4...50 mm <sup>2</sup> - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 4...25 mm <sup>2</sup> - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 4...50 mm <sup>2</sup> - cable stiffness: solid without cable end Control circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 1...2.5 mm <sup>2</sup> - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 1...4 mm <sup>2</sup> - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 1...4 mm <sup>2</sup> - cable stiffness: solid without cable end
<b>Tightening torque</b>	Control circuit: 1.2 N.m Power circuit: 12 N.m
<b>Auxiliary contact composition</b>	1 NO + 1 NC
<b>Minimum switching voltage</b>	17 V for control circuit
<b>Minimum switching current</b>	5 mA for control circuit
<b>Insulation resistance</b>	> 10 MOhm for control circuit
<b>Non-overlap time</b>	1.5 ms on energisation guaranteed between NC and NO contact 1.5 ms on de-energisation guaranteed between NC and NO contact
<b>Mounting support</b>	Plate DIN rail

## Environment

<b>Standards</b>	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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<b>Product certifications</b>	CB Scheme CCC CE EAC
<b>IP degree of protection</b>	IP2X conforming to IEC 60529
<b>Protective treatment</b>	TH (pollution degree 3) conforming to IEC 60068-2-30
<b>Permissible ambient air temperature around the device</b>	-20...70 °C at U <sub>c</sub> -60...80 °C storage -5...55 °C operation
<b>Operating altitude</b>	3000 m without derating
<b>Fire resistance</b>	850 °C conforming to IEC 60695-2-1
<b>Mechanical robustness</b>	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)
<b>Height</b>	127 mm
<b>Width</b>	85 mm
<b>Depth</b>	121 mm
<b>Net weight</b>	1.52 kg

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	12.1 cm
<b>Package 1 Width</b>	8.5 cm
<b>Package 1 Length</b>	12.7 cm
<b>Package 1 Weight</b>	1.52 g

## Contractual warranty

<b>Warranty (in months)</b>	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	<a href="#">Product Environmental Profile</a>
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	<a href="#">Compliant</a>
REACH Regulation	<a href="#">Reference contains Substances of Very High Concern above the threshold</a>

### Use Longer




### Lifetime extension

Repair	No
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### Use Again



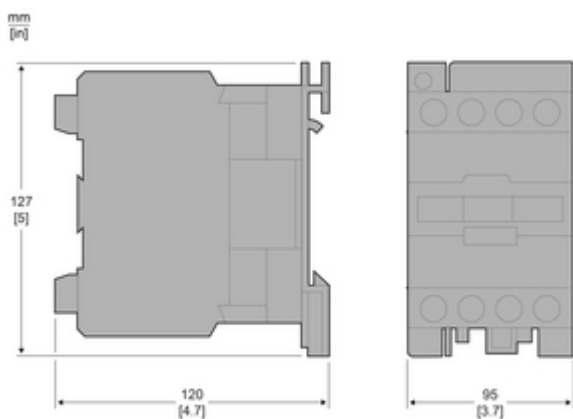
### Repack and remanufacture

Recyclability potential, in %	64
End of life manual availability	<a href="#">End of Life Information</a>
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

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Technical Illustration

Assembly's dimensions

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mm  
[in]

