

Product datasheet

Specifications



Contactor, Easy TeSys Control, LC1E, 3P(3NO), AC-3/ AC-3e, <=440V, 120A/96A, 110V AC coil, 50/60Hz

LC1E120F7

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	120 A (at <55 °C) at <= 440 V AC AC-3 for power circuit 96 A (at <55 °C) at <= 440 V AC AC-3e for power circuit 150 A (at <40 °C) at <= 440 V AC AC-1 for power circuit
[Uc] control circuit voltage	110 V AC 50/60 Hz

Complementary

Motor power kW	37 kW at 220/230 V AC 50/60 Hz 55 kW at 380/400 V AC 50/60 Hz 59 kW at 415/440 V AC 50/60 Hz 75 kW at 500 V AC 50/60 Hz 80 kW at 660/690 V AC 50/60 Hz 80 kW at 660...690 V AC 50/60 Hz
Pole contact composition	3 NO
[Ith] conventional free air thermal current	150 A (at 40 °C) for power circuit
Irms rated making capacity	1200 A at 440 V AC for power circuit conforming to IEC 60947-4-1
Rated breaking capacity	960 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	1100 A 40 °C - 10 s for power circuit
Associated fuse rating	250 A gG at <= 690 V coordination type 1 for control circuit conforming to IEC 60947-5-1 10 A gG at <= 690 V coordination type 1 for power circuit
Average impedance	0.6 mOhm - Ith 150 A 50 Hz for power circuit
Power dissipation per pole	8.6 W AC-3 14 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	8 kV coil not connected to the power circuit conforming to IEC 60947
Mechanical durability	4000000 cycles
Electrical durability	800000 cycles AC-3 250000 cycles AC-1
Control circuit type	AC at 50/60 Hz
Control circuit voltage limits	0.85...1.1 Uc (-5...55 °C):operational 50/60 Hz 0.35...0.55 Uc (-5...55 °C):drop-out 50/60 Hz
Inrush power in VA	300 VA 50 Hz cos phi 0.8 (at 20 °C) 300 VA 60 Hz cos phi 0.8 (at 20 °C)
Hold-in power consumption in VA	22 VA 50 Hz cos phi 0.3 (at 20 °C) 22 VA 60 Hz cos phi 0.3 (at 20 °C)
Heat dissipation	3...8 W for control circuit
Operating time	20...50 ms on closing 6...20 ms on opening
Maximum operating rate	1200 cyc/h 55 °C
Connections - terminals	Power circuit: screw clamp terminals 1 10...120 mm² - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 1 10...120 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 10...120 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 1 1...2.5 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...2.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 1...2.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1...2.5 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 1...2.5 mm² - cable stiffness: solid without cable end
Tightening torque	Power circuit: 12 N.m Control circuit: 1.2 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
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 test Db

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	158 mm
Width	120 mm
Depth	132 mm
Net weight	2.3 kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	17.5 cm
Package 1 Width	16.5 cm
Package 1 Length	20.5 cm
Package 1 Weight	2.394 kg
Unit Type of Package 2	S06
Number of Units in Package 2	24
Package 2 Height	73.5 cm
Package 2 Width	60 cm
Package 2 Length	80 cm
Package 2 Weight	70.456 kg

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	1 070 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Carbon footprint of the manufacturing phase [A1 to A3]	17 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	3 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	1 046 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	4 kg CO2 eq.

Use Better



Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No

Use Longer



Lifetime extension

Repair	No
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Use Again



Repack and remanufacture

Recyclability potential, in %	58
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

Offer Marketing Illustration

Product benefits / Features

Easy TeSys
Contactors



Designed for the essential

Deliver the best balance between performance and budget without any compromise on quality



Easy to use

Easier to install and operate with multi-standard screws



Cost-effective

Provides a cost-effective solution to a simple application



Offer Marketing Illustration

Product benefits / Features

Easy TeSys Contactors

Technical Benefits



- 9 sizes cover common applications from 6A to 630A.
- Designed to meet the requirements of Electro-domestic and HVAC applications.
- Various Relay Coil Voltages; A.C.
- It can cover -5°C to 55°C working temperature and mounted by DIN-rail, No derating up to 3000m altitude.
- 2.2kW to 335kW (AC3/400V)
- Multi-standards certified (IEC, CCC, EAC) and Green Premium compliant (RoHs/Reach).

Offer Marketing Illustration

Product benefits / Features



Easy TeSys Contactors
Range Accessories



Mechanical
interlock



Auxiliary
contact block



Time delay auxiliary
contact block



Terminal block



Suppressor
module

Technical Illustration

Assembly's dimensions

