

# Product datasheet

Specifications



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

LC1E120F6

⚠ Discontinued on: 1 Nov 2020

⚠ Discontinued

### Main

|                                |                                                                                                                                                                               |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                          | Easy TeSys                                                                                                                                                                    |
| Range of product               | Easy TeSys Control                                                                                                                                                            |
| Product or component type      | Contactor                                                                                                                                                                     |
| Device short name              | LC1E                                                                                                                                                                          |
| Contactor application          | Motor control<br>Resistive load                                                                                                                                               |
| Utilisation category           | AC-3<br>AC-3e<br>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<br>96 A (at <55 °C) at <= 440 V AC AC-3e for power circuit<br>150 A (at <40 °C) at <= 440 V AC AC-1 for power circuit |
| [Uc] control circuit voltage   | 110 V AC 60 Hz                                                                                                                                                                |

### Complementary

|                                             |                                                                                                                                                        |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Motor power kW                              | 37 kW at 220/230 V AC 50/60 Hz<br>55 kW at 380/400 V AC<br>59 kW at 415/440 V AC<br>75 kW at 500 V AC<br>80 kW at 660/690 V AC<br>80 kW at 660...690 V |
| 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<br>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<br>14 W AC-1                                                                                                                                |
| [Ui] rated insulation voltage               | 690 V conforming to IEC 60947-4-1                                                                                                                      |
| Overvoltage category                        | III                                                                                                                                                    |

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

|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pollution degree                       | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| [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<br>250000 cycles AC-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Control circuit type                   | AC at 60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Control circuit voltage limits         | 0.85...1.1 Uc (-5...55 °C):operational 50 Hz<br>0.35...0.55 Uc (-5...55 °C):drop-out 50 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Inrush power in VA                     | 300 VA 50 Hz cos phi 0.8 (at 20 °C)<br>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)<br>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<br>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<br>Power circuit: screw clamp terminals 1 10...120 mm² - cable stiffness: flexible with cable end<br>Power circuit: screw clamp terminals 1 10...120 mm² - cable stiffness: solid without cable end<br>Control circuit: screw clamp terminals 1 1...2.5 mm² - cable stiffness: flexible without cable end<br>Control circuit: screw clamp terminals 2 1...2.5 mm² - cable stiffness: flexible without cable end<br>Control circuit: screw clamp terminals 1 1...2.5 mm² - cable stiffness: flexible with cable end<br>Control circuit: screw clamp terminals 2 1...2.5 mm² - cable stiffness: flexible with cable end<br>Control circuit: screw clamp terminals 1 1...2.5 mm² - cable stiffness: solid without cable end<br>Control circuit: screw clamp terminals 2 1...2.5 mm² - cable stiffness: solid without cable end |
| Tightening torque                      | Power circuit: 12 N.m<br>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<br>1.5 ms on de-energisation guaranteed between NC and NO contact                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Mounting support                       | DIN rail<br>Plate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

## Environment

|                         |                                                                                                        |
|-------------------------|--------------------------------------------------------------------------------------------------------|
| Standards               | EN/IEC 60947-1<br>EN/IEC 60947-4-1<br>EN/IEC 60947-5-1<br>GB/T 14048.1<br>GB/T 14048.4<br>GB/T 14048.5 |
| Product certifications  | CB Scheme<br>CCC<br>CE<br>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<br>-60...80 °C storage<br>-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)<br>Vibrations contactor closed (3 Gn, 5...300 Hz)<br>Shocks contactor open (6 Gn for 11 ms)<br>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             | 13.2 cm  |
| Package 1 Width              | 12 cm    |
| Package 1 Length             | 15.8 cm  |
| Package 1 Weight             | 2.5 kg   |
| Unit Type of Package 2       | S04      |
| Number of Units in Package 2 | 6        |
| Package 2 Height             | 30 cm    |
| Package 2 Width              | 40 cm    |
| Package 2 Length             | 60 cm    |
| Package 2 Weight             | 15.64 kg |
| Unit Type of Package 3       | P06      |
| Number of Units in Package 3 | 24       |
| Package 3 Height             | 80 cm    |
| Package 3 Width              | 80 cm    |
| Package 3 Length             | 60 cm    |
| Package 3 Weight             | 70.55 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                       | 1 070 kg CO2 eq.                              |
| Environmental Disclosure                               | <a href="#">Product Environmental Profile</a> |
| 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   | Yes                                                                         |
| EU RoHS Directive                      | <a href="#">Compliant</a>                                                   |
| REACH Regulation                       | <a href="#">Free of Substances of Very High Concern above the threshold</a> |

## Use Longer



### Lifetime extension

|        |    |
|--------|----|
| Repair | No |
|--------|----|

## Use Again



### Repack and remanufacture

|                                 |                                                                                                                                                                                                                 |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recyclability potential, in %   | 58                                                                                                                                                                                                              |
| 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 |

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

---

