

# Product datasheet

Specifications



## Contactor, Easy TeSys Control, LC1E, 3P(3NO), AC-3/AC-3e, <=440V, 38A, 380V AC coil, 50/60Hz, 1NO auxiliary contact

LC1E3810Q7

⚠ 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 | 38 A (at <55 °C) at <= 440 V AC AC-3 for power circuit<br>38 A (at <55 °C) at <= 440 V AC AC-3e for power circuit<br>50 A (at <55 °C) at <= 440 V AC AC-1 for power circuit |
| [Uc] control circuit voltage   | 380 V AC 50/60 Hz                                                                                                                                                           |

### Complementary

|                                             |                                                                                                                                                           |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Motor power kW                              | 9 kW at 220/230 V AC<br>18.5 kW at 380/400 V AC<br>18.5 kW at 415/440 V AC 50/60 Hz<br>18.5 kW at 500 V AC<br>18.5 kW at 660/690 V AC<br>18.5 kW at 440 V |
| Pole contact composition                    | 3 NO                                                                                                                                                      |
| [Ith] conventional free air thermal current | 50 A (at 55 °C) for power circuit                                                                                                                         |
| Irms rated making capacity                  | 494 A at 440 V AC for power circuit conforming to IEC 60947-4-1                                                                                           |
| Rated breaking capacity                     | 323 A at 440 V for power circuit conforming to IEC 60947                                                                                                  |
| [Icw] rated short-time withstand current    | 310 A 40 °C - 10 s for power circuit<br>150 A 40 °C - 60 s for power circuit<br>60 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<br>63 A gG at <= 690 V coordination type 1 for power circuit      |
| Average impedance                           | 2.5 mOhm - Ith 50 A 50 Hz for power circuit                                                                                                               |
| Power dissipation per pole                  | 2.9 W AC-3<br>5 W AC-1                                                                                                                                    |
| [Ui] rated insulation voltage               | 690 V conforming to IEC 60947-4-1                                                                                                                         |

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

|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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                  | 8000000 cycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Electrical durability                  | 350000 cycles AC-1<br>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<br>0.3...0.6 Uc (-5...55 °C):drop-out 50/60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Inrush power in VA                     | 95 VA 50 Hz cos phi 0.75 (at 20 °C)<br>95 VA 60 Hz cos phi 0.75 (at 20 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Hold-in power consumption in VA        | 8.3 VA 50 Hz cos phi 0.3 (at 20 °C)<br>8.5 VA 60 Hz cos phi 0.3 (at 20 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Heat dissipation                       | 2...3 W for control circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Operating time                         | 12...22 ms on closing<br>4...19 ms on opening                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Maximum operating rate                 | 1800 cyc/h 60 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Connections - terminals                | Power circuit: screw clamp terminals 1 1...6 mm² - cable stiffness: flexible without cable end<br>Power circuit: screw clamp terminals 2 1...4 mm² - cable stiffness: flexible without cable end<br>Power circuit: screw clamp terminals 1 1.5...10 mm² - cable stiffness: flexible with cable end<br>Power circuit: screw clamp terminals 2 1.5...6 mm² - cable stiffness: flexible with cable end<br>Power circuit: screw clamp terminals 1 1.5...10 mm² - cable stiffness: solid without cable end<br>Power circuit: screw clamp terminals 2 1.5...6 mm² - cable stiffness: solid without cable end<br>Control circuit: screw clamp terminals 1 1...4 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...4 mm² - cable stiffness: flexible with cable end<br>Control circuit: screw clamp terminals 2 1...4 mm² - cable stiffness: flexible with cable end<br>Control circuit: screw clamp terminals 1 1...4 mm² - cable stiffness: solid without cable end<br>Control circuit: screw clamp terminals 2 1...4 mm² - cable stiffness: solid without cable end |
| Tightening torque                      | Control circuit: 1.2 N.m<br>Power circuit: 2.1 N.m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Auxiliary contact composition          | 1 NO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 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                       | Plate<br>DIN rail                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

## 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<br>EN/IEC 60335-1:Clause 30.2<br>EN/IEC 60335-2-40:Annex JJ                      |
| 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 closed (10 Gn for 11 ms)<br>Shocks contactor open (6 Gn for 11 ms) |
| Height                                                | 84 mm                                                                                                                                                                                   |
| Width                                                 | 56 mm                                                                                                                                                                                   |
| Depth                                                 | 86 mm                                                                                                                                                                                   |
| Net weight                                            | 0.45 kg                                                                                                                                                                                 |

## Packing Units

|                              |           |
|------------------------------|-----------|
| Unit Type of Package 1       | PCE       |
| Number of Units in Package 1 | 1         |
| Package 1 Height             | 8.6 cm    |
| Package 1 Width              | 8.4 cm    |
| Package 1 Length             | 5.6 cm    |
| Package 1 Weight             | 449 g     |
| Unit Type of Package 2       | S02       |
| Number of Units in Package 2 | 24        |
| Package 2 Height             | 15 cm     |
| Package 2 Width              | 30 cm     |
| Package 2 Length             | 40 cm     |
| Package 2 Weight             | 11.184 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

Environmental Disclosure

[Product Environmental Profile](#)

## Use Better



### Materials and Substances

EU RoHS Directive

[Compliant](#)

## Use Longer



### Lifetime extension

Repair

No

## Use Again



### Repack and remanufacture

WEEE Label



The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins