## **Product datasheet**

Specification





# Easy TeSys contactor 3P(3 NO) - AC-3 - <= 440 V 18A - 110 V AC coil

LC1E1810F7

#### 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-1<br>AC-3   |  |
| poles description              | 3P   |  |
| [Ue] rated operational voltage | Power circuit: <= 690 V AC 50/60 Hz  |  |
| [le] rated operational current | 32 A (at <55 °C) at <= 415 V AC AC-1 for power circuit<br>18 A (at <55 °C) at <= 440 V AC AC-3 for power circuit |  |
| [Uc] control circuit voltage   | 110 V AC 50/60 Hz  |  |

### Complementary

| Motor power kW                              | 4 kW at 220230 V AC 50/60 Hz  |
|---|---|
| •   | 7.5 kW at 380400 V  |
|   | 9 kW at 415 V   |
|   | 9 kW at 440 V   |
|   | 10 kW at 500 V  |
|   | 10 kW at 660690 V   |
|   | 10 KVV at 000090 V  |
| Pole contact composition                    | 3 NO  |
| [Ith] conventional free air thermal current | 32 A (at 55 °C)   |
| Irms rated making capacity                  | 180 A at 440 V AC for power circuit conforming to IEC 60947-4-1               |
| Rated breaking capacity                     | 144 A at 440 V for power circuit conforming to IEC 60947                      |
| [lcw] rated short-time withstand            | 145 A 40 °C - 10 s for power circuit  |
| current                                     | 84 A 40 °C - 60 s for power circuit   |
|   | 40 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   |
|   | 35 A gG at <= 690 V coordination type 1 for power circuit                     |
| Average impedance                           | 2.5 mOhm - Ith 32 A 50 Hz for power circuit                                   |
| Power dissipation per pole                  | 0.81 W AC-3   |
|   | 2.6 W AC-1  |
| [Ui] rated insulation voltage               | 690 V conforming to IEC 60947-4-1   |
| 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                  | 10000000 cycles  |  |
| Electrical durability                  | 300000 cycles AC-1<br>1200000 cycles AC-3  |  |
| Control circuit type                   | AC at 50/60 Hz   |  |
| Control circuit voltage limits         | 0.851.1 Uc (-555 °C):operational 50/60 Hz<br>0.30.6 Uc (-555 °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                       | 23 W for control circuit   |  |
| Operating time                         | 1222 ms on closing<br>419 ms on opening  |  |
| Maximum operating rate                 | 1800 cyc/h 60 °C   |  |
| Connections - terminals                | Power circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 12.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 14 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 12.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 1 1.56 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 14 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 16 mm² - cable stiffness: solid without cable end |  |
| Tightening torque                      | Power circuit: 1.2 N.m<br>Control circuit: 1.2 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     1.5 ms on de-energisation guaranteed between NC and NO contact   |  |
| Mounting support                       | Plate<br>DIN rail  |  |
| Environment                            |  |  |
| Standards                              | IEC 60947-5-1<br>IEC 60947-4-1<br>IEC 60947-1  |  |
| Product certifications                 | EAC<br>CE  |  |
| 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 | -2070 °C at Uc<br>-6080 °C storage<br>-555 °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, 5300 Hz) Vibrations contactor closed (3 Gn, 5300 Hz) Shocks contactor open (7 Gn for 11 ms) Shocks contactor closed (10 Gn for 11 ms) |  |
| Height  | 74 mm  |  |
| Width   | 45 mm  |  |
| Depth   | 80 mm  |  |
| Net weight  | t weight 0.3 kg  |  |

## **Packing Units**

| Unit Type of Package 1       | PCE       |
|------------------------------|-----------|
| Number of Units in Package 1 | 1         |
| Package 1 Height             | 8.31 cm   |
| Package 1 Width              | 7.4 cm    |
| Package 1 Length             | 4.82 cm   |
| Package 1 Weight             | 349 g     |
| Unit Type of Package 2       | S02       |
| Number of Units in Package 2 | 36        |
| Package 2 Height             | 15 cm     |
| Package 2 Width              | 30 cm     |
| Package 2 Length             | 40 cm     |
| Package 2 Weight             | 12.972 kg |

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Transparency RoHS/REACh

#### Well-being performance

| <b>⊘</b> | Reach Free Of Svhc         |     |
|----------|----------------------------|-----|
| <b>9</b> | Toxic Heavy Metal Free     |     |
| <b>②</b> | Mercury Free               |     |
| <b>⊘</b> | Rohs Exemption Information | Yes |

#### **Certifications & Standards**

| Reach Regulation         | REACh Declaration   |
|--------------------------|---|
| Eu Rohs Directive        | Compliant EU RoHS Declaration   |
| China Rohs Regulation    | China RoHS declaration  |
| Environmental Disclosure | Product Environmental Profile   |
| Weee                     | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| Circularity Profile      | End of Life Information   |