# **Product datasheet**

Specification





# EasyPact TVS contactor 3P(3 NO) - AC-3 - <= 440 V 50A - 220 V AC coil

LC1E50M7

## Main

| Range                          | Easy TeSys   |  |
|--------------------------------|--|--|
| Range Of Product               | Easy TeSys Control   |  |
| Product Or Component Type      | Contactor  |  |
| Device Short Name              | LC1E   |  |
| Contactor Application          | Resistive load<br>Motor control  |  |
| Utilisation Category           | AC-3<br>AC-1   |  |
| Poles Description              | 3P   |  |
| [Ue] Rated Operational Voltage | Power circuit: <= 690 V AC 50/60 Hz  |  |
| [le] Rated Operational Current | nt 50 A (at <55 °C) at <= 440 V AC AC-3 for power circuit 70 A (at <55 °C) at <= 440 V AC AC-1 for power circuit |  |
| [Uc] Control Circuit Voltage   | 220 V AC 50/60 Hz  |  |

## Complementary

| Motor Power Kw                                 | 15 kW at 220230 V AC 50/60 Hz   |
|--|---|
|  | 22 kW at 380400 V   |
|  | 25 kW at 415 V  |
|  | 30 kW at 440 V  |
|  | 30 kW at 500 V  |
|  | 33 kW at 660690 V   |
| Pole Contact Composition                       | 3 NO  |
| [Ith] Conventional Free Air<br>Thermal Current | 70 A (at 55 °C)   |
| Irms Rated Making Capacity                     | 500 A at 440 V AC for power circuit conforming to IEC 60947-4-1                         |
| Rated Breaking Capacity                        | 400 A at 440 V for power circuit conforming to IEC 60947                                |
| [Icw] Rated Short-Time Withstand               | 400 A 40 °C - 10 s for power circuit  |
| Current  | 208 A 40 °C - 60 s for power circuit  |
|  | 84 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 |
|  | 100 A gG at <= 690 V coordination type 1 for power circuit                              |
| Average Impedance                              | 1.5 mOhm - Ith 70 A 50 Hz for power circuit   |
| Power Dissipation Per Pole                     | 3.8 W AC-3  |
|  | 7.4 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                  | 5000000 cycles  |
| Electrical Durability                  | 350000 cycles AC-1<br>900000 cycles AC-3  |
| Control Circuit Type                   | AC at 50/60 Hz  |
| Control Circuit Voltage Limits         | 0.851.1 Uc (55 °C):operational 50/60 Hz<br>0.30.6 Uc (55 °C):drop-out 50/60 Hz  |
| Inrush Power In Va                     | 160 VA 50 Hz cos phi 0.75 (at 20 °C)<br>140 VA 60 Hz cos phi 0.75 (at 20 °C)  |
| Hold-In Power Consumption In Va        | 15 VA 50 Hz cos phi 0.3 (at 20 °C)<br>13 VA 60 Hz cos phi 0.3 (at 20 °C)  |
| Heat Dissipation                       | 610 W for control circuit   |
| Operating Time                         | 2026 ms on closing<br>812 ms on opening   |
| Maximum Operating Rate                 | 1200 cyc/h 60 °C  |
| Connections - Terminals                | 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 2 14 mm² - cable stiffness: solid without cable end  Power circuit: screw clamp terminals 1 2.525 mm² - cable stiffness: flexible with cable end  Power circuit: screw clamp terminals 2 2.510 mm² - cable stiffness: flexible with cable end  Power circuit: screw clamp terminals 1 2.525 mm² - cable stiffness: solid without cable end  Power circuit: screw clamp terminals 2 2.516 mm² - cable stiffness: solid without cable end  Power circuit: screw clamp terminals 2 2.516 mm² - cable stiffness: solid without cable end |
| Tightening Torque                      | Control circuit: 1.2 N.m<br>Power circuit: 5 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<br>Plate   |
| 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<br>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 (6 Gn for 11 ms) Shocks contactor closed (7 Gn for 11 ms) |  |
| Height   | 127 mm  |  |
| Width  | 75 mm   |  |
| Depth  | 114 mm  |  |
| Net Weight   | 0.98 kg   |  |

# Packing Units

| Unit Type Of Package 1       | PCE      |
|------------------------------|----------|
| Number Of Units In Package 1 | 1        |
| Package 1 Height             | 12.0 cm  |
| Package 1 Width              | 13.0 cm  |
| Package 1 Length             | 8.0 cm   |
| Package 1 Weight             | 967.0 g  |
| Unit Type Of Package 2       | S02      |
| Number Of Units In Package 2 | 9        |
| Package 2 Height             | 15.0 cm  |
| Package 2 Width              | 30.0 cm  |
| Package 2 Length             | 40.0 cm  |
| Package 2 Weight             | 9.055 kg |



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Transparency RoHS/REACh

## Well-being performance

| <b>Ø</b> | Reach Free Of Svhc         |     |
|----------|----------------------------|-----|
| <b>⊘</b> | Toxic Heavy Metal Free     |     |
| <b>⊘</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  |
| <b>Environmental Disclosure</b> | 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   |