

Product datasheet

Specifications



EasyPact TVS contactor 3P(3 NO) - AC-3 - ≤ 440 V 160A - 220 V AC coil

LC1E160M5

Main

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|--------------------------------|--|
| Range | EasyPact |
| Product or component type | Contactor |
| Device short name | LC1E |
| Contactor application | Resistive load Motor control |
| Utilisation category | AC-1 AC-3 |
| Poles description | 3P |
| [Ue] rated operational voltage | Power circuit: ≤ 690 V AC 50/60 Hz |
| [Ie] rated operational current | 160 A (at ≤ 55 °C) at ≤ 440 V AC AC-3 for power circuit 200 A (at ≤ 55 °C) at ≤ 440 V AC AC-1 for power circuit |
| [Uc] control circuit voltage | 220 V AC 50 Hz |

Complementary

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|---|---|
| Motor power kW | 45 kW at 220...230 V AC 50/60 Hz 75 kW at 380...400 V 80 kW at 415 V 80 kW at 440 V 90 kW at 500 V 100 kW at 660...690 V |
| Pole contact composition | 3 NO |
| [Ith] conventional free air thermal current | 200 A (at 40 °C) |
| Irms rated making capacity | 1600 A at 440 V AC for power circuit conforming to IEC 60947-4-1 |
| Rated breaking capacity | 1280 A at 440 V for power circuit conforming to IEC 60947 |
| [Icw] rated short-time withstand current | 1400 A 40 °C - 10 s for power circuit |
| Associated fuse rating | 10 A gG at ≤ 690 V coordination type 1 for control circuit conforming to IEC 60947-5-1 315 A gG at ≤ 690 V coordination type 1 for power circuit |
| Average impedance | 0.6 mOhm - Ith 200 A 50 Hz for power circuit |
| Power dissipation per pole | 24 W AC-1 15 W AC-3 |
| [Ui] rated insulation voltage | 690 V conforming to IEC 60947-4-1 |
| Overvoltage category | III |
| Pollution degree | 3 |

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| [Uimp] rated impulse withstand voltage | 8 kV coil not connected to the power circuit conforming to IEC 60947 |
| Mechanical durability | 400000 cycles |
| Electrical durability | 800000 cycles AC-3 250000 cycles AC-1 |
| Control circuit type | AC at 50 Hz |
| Control circuit voltage limits | 0.85...1.1 U _c (55 °C):operational 50 Hz 0.35...0.55 U _c (55 °C):drop-out 50 Hz |
| Inrush power in VA | 300 VA 50 Hz cos phi 0.9 (at 20 °C) 300 VA 60 Hz cos phi 0.9 (at 20 °C) |
| Hold-in power consumption in VA | 22 VA 50 Hz cos phi 0.9 (at 20 °C) 22 VA 60 Hz cos phi 0.9 (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 | Control circuit: screw clamp terminals 2 1...2.5 mm ² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 10...120 mm ² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 10...120 mm ² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 1 1...2.5 mm ² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 1...2.5 mm ² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 1...2.5 mm ² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1...2.5 mm ² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 1...2.5 mm ² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 10...120 mm ² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 10...120 mm ² - 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 | Plate DIN rail |
| Environment | |
| Standards | IEC 60947-4-1 IEC 60947-1 IEC 60947-5-1 |
| Product certifications | EAC 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 | -20...70 °C at U _c -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 |

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| Net weight | 2.3 kg |
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Packing Units

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| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Height | 18.0 cm |
| Package 1 Width | 17.0 cm |
| Package 1 Length | 21.0 cm |
| Package 1 Weight | 2.406 kg |
| Unit Type of Package 2 | S03 |
| Number of Units in Package 2 | 2 |
| Package 2 Height | 30.0 cm |
| Package 2 Width | 30.0 cm |
| Package 2 Length | 40.0 cm |
| Package 2 Weight | 5.53 kg |
| Unit Type of Package 3 | P06 |
| Number of Units in Package 3 | 24 |
| Package 3 Height | 75.0 cm |
| Package 3 Width | 80.0 cm |
| Package 3 Length | 60.0 cm |
| Package 3 Weight | 70.74 kg |

Offer Sustainability

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|----------------------------|---|
| Sustainable offer status | Green Premium product |
| REACH Regulation | REACH Declaration |
| EU RoHS Directive | Compliant EU RoHS Declaration |
| Toxic heavy metal free | Yes |
| Mercury free | Yes |
| China RoHS Regulation | China RoHS declaration |
| RoHS exemption information | Yes |
| 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 |

Contractual warranty

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| Warranty | 18 months |
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Recommended replacement(s)