

Product data sheet Characteristics

LC1K0901B7

TeSys K contactor - 3P - AC-3 <= 440 V 9 A - 1 NC aux. - 24 V AC coil





Main Range TeSys Product or component type Product name TeSys K Device short name LC1K Device application Control Contactor application Resistive load Motor control

Complementary

| Complementary | | |
|---|---|--|
| Utilisation category | AC-3 | |
| | AC-4 | |
| | AC-1 | |
| Poles description | 3P | |
| Power pole contact composition | 3 NO | |
| [Ue] rated operational voltage | Power circuit: 690 V AC 50/60 Hz | |
| | Signalling circuit: <= 690 V AC 50/60 Hz | |
| [le] rated operational current | 20 A (at <50 °C) at <= 440 V AC AC-1 for power circuit | |
| | 9 A at <= 440 V AC AC-3 for power circuit | |
| | 16 A (at <70 °C) at 690 V AC AC-1 for power circuit | |
| Control circuit type | AC at 50/60 Hz | |
| [Uc] control circuit voltage | 24 V AC 50/60 Hz | |
| Motor power kW | 2.2 KW at 220230 V AC 50/60 Hz AC-3 | |
| | 4 KW at 380415 V AC 50/60 Hz AC-3 | |
| | 4 KW at 440 V AC 50/60 Hz AC-3 | |
| | 4 KW at 480 V AC 50/60 Hz AC-3 | |
| | 4 KW at 500600 V AC 50/60 Hz AC-3 | |
| | 4 KW at 660690 V AC 50/60 Hz AC-3 | |
| | 2.2 kW at 400 V AC 50/60 Hz AC-4 | |
| Auxiliary contact composition | 1 NC | |
| [Uimp] rated impulse withstand voltage | 8 kV | |
| Overvoltage category | III | |
| [Ith] conventional free air thermal current | 20 A (at 50 °C) for power circuit | |
| | 10 A (at 50 °C) for signalling circuit | |
| Irms rated making capacity | 110 A AC for power circuit conforming to NF C 63-110 | |
| | 110 A AC for power circuit conforming to IEC 60947 | |
| | 110 A AC for signalling circuit conforming to IEC 60947 | |
| Rated breaking capacity | 110 A at 415 V conforming to IEC 60947 | |
| | 110 A at 440 V conforming to IEC 60947 | |
| | 80 A at 500 V conforming to IEC 60947 | |
| | 110 A at 220230 V conforming to IEC 60947 | |
| | 110 A at 380400 V conforming to IEC 60947 | |
| | 70 A at 660690 V conforming to IEC 60947 | |

| [Icw] rated short-time withstand current | 90 A 50 °C - 1 s for power circuit 85 A 50 °C - 5 s for power circuit 80 A 50 °C - 10 s for power circuit 60 A 50 °C - 30 s for power circuit 45 A 50 °C - 1 min for power circuit 40 A 50 °C - 1 min for power circuit 40 A 50 °C - 3 min for power circuit 20 A 50 °C ->= 15 min for power circuit 80 A - 1 s for signalling circuit 90 A - 500 ms for signalling circuit 110 A - 100 ms for signalling circuit |
|--|--|
| Associated fuse rating | 25 A gG at <= 440 V for power circuit 25 A aM for power circuit 10 A gG for signalling circuit conforming to IEC 60947 10 A gG for signalling circuit conforming to VDE 0660 |
| Average impedance | 3 mOhm - Ith 20 A 50 Hz for power circuit |
| [Ui] rated insulation voltage | Power circuit: 600 V conforming to UL 508 Power circuit: 690 V conforming to IEC 60947-4-1 Signalling circuit: 690 V conforming to IEC 60947-4-1 Signalling circuit: 690 V conforming to IEC 60947-5-1 Signalling circuit: 600 V conforming to UL 508 Power circuit: 600 V conforming to CSA C22.2 No 14 Signalling circuit: 600 V conforming to CSA C22.2 No 14 |
| Insulation resistance | > 10 MOhm for signalling circuit |
| Inrush power in VA | 30 VA (at 20 °C) |
| Hold-in power consumption in VA | 4.5 VA (at 20 °C) |
| Heat dissipation | 1.3 W |
| Control circuit voltage limits | Operational: 0.81.15 Uc (at <50 °C) Drop-out: 0.20.75 Uc (at <50 °C) |
| Connections - terminals | Screw clamp terminals 1 cable(s) 1.54 mm²solid Screw clamp terminals 1 cable(s) 0.754 mm²flexible without cable end Screw clamp terminals 1 cable(s) 0.342.5 mm²flexible with cable end Screw clamp terminals 2 cable(s) 1.54 mm²solid Screw clamp terminals 2 cable(s) 0.754 mm²flexible without cable end Screw clamp terminals 2 cable(s) 0.341.5 mm²flexible with cable end |
| Maximum operating rate | 3600 cyc/h |
| Auxiliary contacts type | Type instantaneous 1 NC |
| Signalling circuit frequency | <= 400 Hz |
| Minimum switching current | 5 mA for signalling circuit |
| Minimum switching voltage | 17 V for signalling circuit |
| Mounting support | Plate Rail |
| Tightening torque | 1.3 N.M - on screw clamp terminals - with screwdriver Philips No 2 1.3 N.m - on screw clamp terminals - with screwdriver flat \varnothing 6 mm |
| Operating time | 1020 ms coil de-energisation and NO opening 1020 ms coil energisation and NO closing |
| Safety reliability level | B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 |
| Non overlap distance | 0.5 mm |
| Mechanical durability | 10 Mcycles |
| Electrical durability | 0.18 Mcycles 20 A AC-1 at Ue <= 440 V 1.3 Mcycles 9 A AC-3 at Ue <= 440 V |
| Mechanical robustness | Shocks contactor closed, on X axis: 10 Gn for 11 ms conforming to IEC 60068-2-27 Shocks contactor closed, on Y axis: 15 Gn for 11 ms conforming to IEC 60068-2-27 Shocks contactor closed, on Z axis: 15 Gn for 11 ms conforming to IEC 60068-2-27 Shocks contactor opened, on X axis: 6 Gn for 11 ms conforming to IEC 60068-2-27 Shocks contactor opened, on Y axis: 10 Gn for 11 ms conforming to IEC 60068-2-27 Shocks contactor opened, on Z axis: 10 Gn for 11 ms conforming to IEC 60068-2-27 Vibrations contactor opened: 4 Gn, 5300 Hz conforming to IEC 60068-2-6 Vibrations contactor opened: 2 Gn, 5300 Hz conforming to IEC 60068-2-6 |
| | |
| Height | 58 mm |
| Height Depth | 58 mm 57 mm |

Environment

| Standards | BS 5424 IEC 60947 NF C 63-110 VDE 0660 | |
|-------------------------------------|--|--|
| Product certifications | CSA UL | |
| IP degree of protection | IP2x conforming to VDE 0106 | |
| Protective treatment | TC conforming to IEC 60068 TC conforming to DIN 50016 | |
| Ambient air temperature for storage | -5080 °C | |
| Operating altitude | 2000 m without derating | |
| Flame retardance | V1 conforming to UL 94 Requirement 2 conforming to NF F 16-101 Requirement 2 conforming to NF F 16-102 | |
| | | |

Packing Units

| 3 | |
|------------------------------|-----------|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Weight | 177.9 g |
| Package 1 Height | 4.8 cm |
| Package 1 width | 6.2 cm |
| Package 1 Length | 6.5 cm |
| Unit Type of Package 2 | S02 |
| Number of Units in Package 2 | 50 |
| Package 2 Weight | 9.155 kg |
| Package 2 Height | 15 cm |
| Package 2 width | 30 cm |
| Package 2 Length | 40 cm |
| Unit Type of Package 3 | P06 |
| Number of Units in Package 3 | 800 |
| Package 3 Weight | 154.48 kg |
| Package 3 Height | 75 cm |
| Package 3 width | 80 cm |
| Package 3 Length | 60 cm |
| | |

Offer Sustainability

| Sustainable offer status | Green Premium product |
|----------------------------|---|
| REACh Regulation | ☑REACh Declaration |
| REACh free of SVHC | Yes |
| EU RoHS Directive | Compliant EEU RoHS Declaration |
| Toxic heavy metal free | Yes |
| Mercury free | Yes |
| RoHS exemption information | ₫Yes |
| China RoHS Regulation | ☐ China RoHS Declaration |
| Environmental Disclosure | Product Environmental Profile |
| Circularity Profile | End Of Life Information |
| WEEE | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

Contractual warranty

| 144 | | |
|-----------|-----------|--|
| Warranty | 12 months | |
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| | | |