



Main

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

Complementary

| | |
|--|--|
| Utilisation category | AC-3 AC-1 AC-4 |
| Poles description | 3P |
| Power pole contact composition | 3 NO |
| [Ue] rated operational voltage | Power circuit: 690 V AC 50/60 Hz Signalling circuit: \leq 690 V AC 50/60 Hz |
| [Ie] rated operational current | 20 A (at \leq 50 °C) at \leq 440 V AC AC-1 for power circuit 12 A at \leq 440 V AC AC-3 for power circuit 16 A (at \leq 70 °C) at 690 V AC AC-1 for power circuit |
| Control circuit type | AC at 50/60 Hz |
| [Uc] control circuit voltage | 230...240 V AC 50/60 Hz |
| Motor power kW | 4 kW at 480 V AC 50/60 Hz AC-3 4 kW at 500...600 V AC 50/60 Hz AC-3 4 kW at 660...690 V AC 50/60 Hz AC-3 2.2 kW at 400 V AC 50/60 Hz AC-4 3 kW at 220...230 V AC 50/60 Hz AC-3 5.5 kW at 380...415 V AC 50/60 Hz AC-3 5.5 kW at 440 V AC 50/60 Hz AC-3 |
| Auxiliary contact composition | 1 NO |
| [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 signalling circuit conforming to IEC 60947 144 A AC for power circuit conforming to NF C 63-110 144 A AC for power circuit conforming to IEC 60947 |
| Rated breaking capacity | 110 A at 440 V conforming to IEC 60947 80 A at 500 V conforming to IEC 60947 70 A at 660...690 V conforming to IEC 60947 |
| [Icw] rated short-time withstand current | 115 A 50 °C - 1 s for power circuit 105 A 50 °C - 5 s for power circuit 100 A 50 °C - 10 s for power circuit 75 A 50 °C - 30 s for power circuit 55 A 50 °C - 1 min for power circuit 50 A 50 °C - 3 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 25 A 50 °C - >= 15 min for power 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: 0.8...1.15 U _c (at <50 °C) Drop-out: 0.2...0.75 U _c (at <50 °C) |
| Connections - terminals | Screw clamp terminals 1 cable(s) 1.5...4 mm ² solid Screw clamp terminals 1 cable(s) 0.75...4 mm ² flexible without cable end Screw clamp terminals 1 cable(s) 0.34...2.5 mm ² flexible with cable end Screw clamp terminals 2 cable(s) 1.5...4 mm ² solid Screw clamp terminals 2 cable(s) 0.75...4 mm ² flexible without cable end Screw clamp terminals 2 cable(s) 0.34...1.5 mm ² flexible with cable end |
| Maximum operating rate | 3600 cyc/h |
| Auxiliary contacts type | type instantaneous 1 NO |
| Signalling circuit frequency | <= 400 Hz |
| Minimum switching current | 5 mA for signalling circuit |
| Minimum switching voltage | 17 V for signalling circuit |
| Mounting support | Rail Plate |
| 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 Ø 6 mm |
| Operating time | 10...20 ms coil de-energisation and NO opening 10...20 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 | 0.3 Mcycles 20 A AC-1 at U _e <= 440 V 1.3 Mcycles 12 A AC-3 at U _e <= 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 closed: 4 Gn, 5...300 Hz conforming to IEC 60068-2-6
 Vibrations contactor opened: 2 Gn, 5...300 Hz conforming to IEC 60068-2-6

| | |
|------------|---------|
| Height | 58 mm |
| Width | 45 mm |
| Depth | 57 mm |
| Net weight | 0.18 kg |

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 operation | -25...50 °C |
| Ambient air temperature for storage | -50...80 °C |
| Operating altitude | 2000 m without |
| Flame retardance | V1 conforming to UL 94 Requirement 2 conforming to NF F 16-101 Requirement 2 conforming to NF F 16-102 |

Offer Sustainability

| | |
|----------------------------|--|
| Sustainable offer status | Green Premium product |
| REACH Regulation | REACH Declaration |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration |
| Mercury free | Yes |
| RoHS exemption information | Yes |
| China RoHS Regulation | Download RoHS China Declaration Product out of China RoHS scope. Substance declaration for your information |
| 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

| | |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|