# LC7K0910U7

TeSys K contactor - 3P - AC-3 <= 440 V 9 A - 1 NO aux. - 230...240 V AC coil

Green Premium™



## Main

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|---|---|
| Range | TeSys |
| Product or component type | Contactor |
| Product name | TeSys K |
| Device short name | LC7K |
| Device application | Control |
| Contactor application | Resistive load<br>Motor control |

## Complementary

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| Utilisation category | AC-3<br>AC-4<br>AC-1 |
| Poles description | 3P |
| Power pole contact composition | 3 NO |
| [Ue] rated operational voltage | Power circuit: 690 V AC 50/60 Hz<br>Signalling circuit: <= 690 V AC 50/60 Hz |
| [Ie] rated operational current | 20 A (at <50 °C) at <= 440 V AC AC-1 for power circuit<br>9 A at <= 440 V AC AC-3 for power circuit<br>16 A (at <70 °C) at 690 V AC AC-1 for power circuit |
| Control circuit type | AC at 50/60 Hz silent |
| [Uc] control circuit voltage | 230...240 V AC 50/60 Hz |
| Motor power kW | 2.2 kW at 220...230 V AC 50/60 Hz AC-3<br>4 kW at 380...415 V AC 50/60 Hz AC-3<br>4 kW at 440 V AC 50/60 Hz AC-3<br>4 kW at 480 V AC 50/60 Hz AC-3<br>4 kW at 500...600 V AC 50/60 Hz AC-3<br>4 kW at 660...690 V AC 50/60 Hz AC-3<br>2.2 kW at 400 V AC 50/60 Hz AC-4 |
| Auxiliary contact composition | 1 NO |
| [Uimp] rated impulse withstand voltage | 8 kV |
| Overvoltage category | III |

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| [Ith] conventional free air thermal current | 20 A (at 50 °C) for power circuit<br>10 A (at 50 °C) for signalling circuit |
| Irms rated making capacity | 110 A AC for power circuit conforming to NF C 63-110<br>110 A AC for power circuit conforming to IEC 60947<br>110 A AC for signalling circuit conforming to IEC 60947 |
| Rated breaking capacity | 110 A at 415 V conforming to IEC 60947<br>110 A at 440 V conforming to IEC 60947<br>80 A at 500 V conforming to IEC 60947<br>110 A at 220...230 V conforming to IEC 60947<br>110 A at 380...400 V conforming to IEC 60947<br>70 A at 660...690 V conforming to IEC 60947 |
| [Icw] rated short-time withstand current | 90 A 50 °C - 1 s for power circuit<br>85 A 50 °C - 5 s for power circuit<br>80 A 50 °C - 10 s for power circuit<br>60 A 50 °C - 30 s for power circuit<br>45 A 50 °C - 1 min for power circuit<br>40 A 50 °C - 3 min for power circuit<br>20 A 50 °C - >= 15 min for power circuit<br>80 A - 1 s for signalling circuit<br>90 A - 500 ms for signalling circuit<br>110 A - 100 ms for signalling circuit |
| Associated fuse rating | 25 A gG at <= 440 V for power circuit<br>25 A aM for power circuit<br>10 A gG for signalling circuit conforming to IEC 60947<br>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<br>Power circuit: 690 V conforming to IEC 60947-4-1<br>Signalling circuit: 690 V conforming to IEC 60947-4-1<br>Signalling circuit: 690 V conforming to IEC 60947-5-1<br>Signalling circuit: 600 V conforming to UL 508<br>Power circuit: 600 V conforming to CSA C22.2 No 14<br>Signalling circuit: 600 V conforming to CSA C22.2 No 14 |
| Insulation resistance | > 10 MOhm for signalling circuit |
| Inrush power in VA | 3 VA (at 20 °C) |
| Hold-in power consumption in VA | 3 VA (at 20 °C) |
| Heat dissipation | 3 W |
| Control circuit voltage limits | Operational: 0.85...1.1 Uc (at <50 °C)<br>Drop-out: 0.1...0.75 Uc (at <50 °C) |
| Connections - terminals | Screw clamp terminals 1 cable(s) 1.5…4 mm²solid<br>Screw clamp terminals 1 cable(s) 0.75…4 mm²flexible without cable end<br>Screw clamp terminals 1 cable(s) 0.34…2.5 mm²flexible with cable end<br>Screw clamp terminals 2 cable(s) 1.5…4 mm²solid<br>Screw clamp terminals 2 cable(s) 0.75…4 mm²flexible without cable end<br>Screw clamp terminals 2 cable(s) 0.34…1.5 mm²flexible 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 | Plate<br>Rail |
| Tightening torque | 1.3 N.m - on screw clamp terminals - with screwdriver Philips No 2<br>1.3 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm |
| Operating time | 30...40 ms coil energisation and NO closing<br>30 ms coil de-energisation and NO opening |
| Safety reliability level | B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1<br>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<br>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<br>Shocks contactor closed, on Y axis: 15 Gn for 11 ms conforming to IEC 60068-2-27<br>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

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| Depth | 57 mm |
| Net weight | 0.225 kg |

## Environment

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| Standards | BS 5424<br>IEC 60947<br>NF C 63-110<br>VDE 0660 |
| Product certifications | UL<br>CSA |
| IP degree of protection | IP2x conforming to VDE 0106 |
| Protective treatment | TC conforming to IEC 60068<br>TC conforming to DIN 50016 |
| Ambient air temperature for storage | -50…80 °C |
| Operating altitude | 2000 m without |
| Flame retardance | V1 conforming to UL 94<br>Requirement 2 conforming to NF F 16-101<br>Requirement 2 conforming to NF F 16-102 |

## Offer Sustainability

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| Sustainable offer status | Green Premium product |
| EU RoHS Directive | Compliant<br>EU RoHS Declaration |
| Mercury free | Yes |
| RoHS exemption information | Yes |
| China RoHS Regulation | China RoHS declaration<br>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

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| Warranty | 18 months |