

# Product data sheet

Specifications



## Contactor, TeSys K, 3P, AC-3/ AC-3e,440V 9A, 1NC aux, 24V AC coil

LC1K0901B7

### Main

|                           |                                 |
|---------------------------|---------------------------------|
| Range                     | TeSys                           |
| Product Or Component Type | Contactor                       |
| Device Short Name         | LC1K                            |
| Device Application        | Control                         |
| Contactor Application     | Resistive load<br>Motor control |

### Complementary

|   |   |
|---|---|
| Utilisation Category                        | AC-3<br>AC-3e<br>AC-1<br>AC-4   |
| Poles Description                           | 3P  |
| Power Pole Contact Composition              | 3 NO  |
| [Ue] Rated Operational Voltage              | Power circuit: <= 690 V AC <= 400 Hz<br>Signalling circuit: <= 690 V AC <= 400 Hz   |
| [Ie] Rated Operational Current              | 9 A (at <60 °C) at <= 440 V AC AC-3 for power circuit<br>9 A (at <60 °C) at <= 440 V AC AC-3e for power circuit<br>20 A (at <60 °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 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 440/690 V AC 50/60 Hz AC-3<br>2.2 kW at 220...230 V AC 50/60 Hz AC-3e<br>4 kW at 380...415 V AC 50/60 Hz AC-3e<br>4 kW at 440/690 V AC 50/60 Hz AC-3e<br>2.2 kW at 220...230 V AC 50/60 Hz AC-4<br>4 kW at 380...415 V AC 50/60 Hz AC-4<br>4 kW at 440/690 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 60 °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 IEC 60947<br>110 A AC for signalling circuit conforming to IEC 60947   |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

|   |  |
|---|--|
| <b>Rated Breaking Capacity</b>                  | 110 A at 220...230 V conforming to IEC 60947<br>110 A at 380...400 V conforming to IEC 60947<br>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>70 A at 660...690 V conforming to IEC 60947   |
| <b>[Icw] Rated Short-Time Withstand Current</b> | 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         |
| <b>Associated Fuse Rating</b>                   | 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  |
| <b>Average Impedance</b>                        | 3 mOhm - lth 20 A 50 Hz for power circuit  |
| <b>[Ui] Rated Insulation Voltage</b>            | 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                               |
| <b>Insulation Resistance</b>                    | > 10 MOhm for signalling circuit   |
| <b>Inrush Power In Va</b>                       | 30 VA (at 20 °C)   |
| <b>Hold-In Power Consumption In Va</b>          | 4.5 VA (at 20 °C)  |
| <b>Heat Dissipation</b>                         | 1.3 W  |
| <b>Control Circuit Voltage Limits</b>           | Operational: 0.8...1.15 Uc (at <50 °C)<br>Drop-out: >= 0.20 Uc (at <50 °C)   |
| <b>Connections - Terminals</b>                  | 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 |
| <b>Maximum Operating Rate</b>                   | 3600 cyc/h   |
| <b>Auxiliary Contacts Type</b>                  | type instantaneous 1 NC  |
| <b>Signalling Circuit Frequency</b>             | <= 400 Hz  |
| <b>Minimum Switching Current</b>                | 5 mA for signalling circuit  |
| <b>Minimum Switching Voltage</b>                | 17 V for signalling circuit  |
| <b>Mounting Support</b>                         | Plate<br>Rail  |
| <b>Tightening Torque</b>                        | 0.8...1.3 N.m - on screw clamp terminals Philips No 2<br>0.8...1.3 N.m - on screw clamp terminals flat Ø 6 mm<br>0.8...1.3 N.m - on screw clamp terminals pozidriv No 2  |
| <b>Operating Time</b>                           | 10...20 ms coil de-energisation and NO opening<br>10...20 ms coil energisation and NO closing  |
| <b>Safety Reliability Level</b>                 | 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   |
| <b>Non Overlap Distance</b>                     | 0.5 mm   |
| <b>Mechanical Durability</b>                    | 10 Mcycles   |

|                       |   |
|-----------------------|---|
| Electrical Durability | 1.3 Mcycles 9 A AC-3 at Ue <= 440 V<br>1.3 Mcycles 9 A AC-3e at Ue <= 440 V<br>0.16 Mcycles 20 A AC-1 at Ue <= 690 V<br>0.02 Mcycles 54 A AC-4 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<br>Shocks contactor opened, on X axis: 6 Gn for 11 ms conforming to IEC 60068-2-27<br>Shocks contactor opened, on Y axis: 10 Gn for 11 ms conforming to IEC 60068-2-27<br>Shocks contactor opened, on Z axis: 10 Gn for 11 ms conforming to IEC 60068-2-27<br>Vibrations contactor closed: 4 Gn, 5...300 Hz conforming to IEC 60068-2-6<br>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                           | EN/IEC 60947-4-1<br>GB/T 14048.4<br>UL 60947-4-1<br>CSA C22.2 No 60947-4-1<br>JIS C8201-4-1                  |
| Product Certifications              | CB Scheme<br>CCC<br>UL<br>CSA<br>EAC<br>CE<br>UKCA   |
| 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 derating  |
| 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 |

## Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type Of Package 1       | PCE      |
| Number Of Units In Package 1 | 1        |
| Package 1 Height             | 4.8 cm   |
| Package 1 Width              | 6.2 cm   |
| Package 1 Length             | 6.5 cm   |
| Package 1 Weight             | 177.9 g  |
| Unit Type Of Package 2       | S02      |
| Number Of Units In Package 2 | 50       |
| Package 2 Height             | 15.0 cm  |
| Package 2 Width              | 30.0 cm  |
| Package 2 Length             | 40.0 cm  |
| Package 2 Weight             | 9.155 kg |

|                              |           |
|------------------------------|-----------|
| Unit Type Of Package 3       | P06       |
| Number Of Units In Package 3 | 800       |
| Package 3 Height             | 75.0 cm   |
| Package 3 Width              | 80.0 cm   |
| Package 3 Length             | 60.0 cm   |
| Package 3 Weight             | 154.48 kg |

## Contractual warranty

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

## Sustainability

**Green Premium™ label** is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

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[Guide to assess a product's sustainability >](#)



Transparency   RoHS/REACH

## Well-being performance

✓ Reach Free Of Svhc

✓ Toxic Heavy Metal Free

✓ Mercury Free

✓ Rohs Exemption Information   Yes

## Certifications & Standards

|                           |   |
|---------------------------|---|
| Reach Regulation          | <a href="#">REACH Declaration</a>   |
| Eu Rohs Directive         | Compliant<br><a href="#">EU RoHS Declaration</a>  |
| China Rohs Regulation     | <a href="#">China RoHS declaration</a><br>Pro-active China RoHS declaration (out of China RoHS legal scope)   |
| Environmental Disclosure  | <a href="#">Product Environmental Profile</a>   |
| Weee                      | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins   |
| Circularity Profile       | <a href="#">End of Life Information</a>   |
| California Proposition 65 | WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |