

# Product datasheet

Specifications



Contactor, TeSys K, 3P, AC-3/  
AC-3e, <=440V, 9A, aux. 1NO,  
72V DC coil

LP1K0910SD

## Main

|                           |                                 |
|---------------------------|---------------------------------|
| Range                     | TeSys                           |
| Product or component type | Contactor                       |
| Device short name         | LP1K                            |
| 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                        | DC standard                                                                                                                                                                                                                                                                                                                                                             |
| [Uc] control circuit voltage                | 72 V DC                                                                                                                                                                                                                                                                                                                                                                 |
| 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 NO                                                                                                                                                                                                                                                                                                                                                                    |
| [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                                                                                                                                                                                                                                                           |
| Rated breaking capacity                     | 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                                                                                                |

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>[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 W</b>                        | 3 W (at 20 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Hold-in power consumption in W</b>           | 3 W 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: >= 0.10 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<br>Power circuit: screw clamp terminals 2 cable(s) 1.5 mm²flexible with cable end |
| <b>Maximum operating rate</b>                   | 3600 cyc/h                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Auxiliary contacts type</b>                  | type instantaneous 1 NO                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Minimum switching current</b>                | 5 mA for signalling circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Minimum switching voltage</b>                | 17 V for signalling circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>mounting support</b>                         | Rail<br>Plate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <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>                           | 30...40 ms coil energisation and NO closing<br>10 ms coil de-energisation and NO opening                                                                                                                                                                                                                                                                                                                                                                                                           |
| <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>Mechanical durability</b>                    | 10 Mcycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Electrical durability</b>                    | 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                                                                                                                                                                                                                                                                                                                                      |
| <b>Height</b>                                   | 58 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Width</b>                                    | 45 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Depth</b>                                    | 57 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

|            |          |
|------------|----------|
| Net weight | 0.225 kg |
|------------|----------|

## Environment

|                                       |                                                                                                                                          |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Standards                             | EN/IEC 60947-4-1<br>EN/IEC 60947-5-1<br>UL 60947-4-1<br>UL 60947-5-1<br>CSA C22.2 No 60947-4-1<br>CSA C22.2 No 60947-5-1<br>GB/T 14048.4 |
| product certifications                | CB Scheme<br>CCC<br>UL<br>CSA<br>EAC<br>CE<br>UKCA                                                                                       |
| IP degree of protection               | IP2X                                                                                                                                     |
| Ambient air temperature for operation | -25...50 °C                                                                                                                              |
| 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             | 6.6 cm  |
| Package 1 Weight             | 225.0 g |

## 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.

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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>                                                                                     |