

# Product data sheet

Specifications



contactor, TeSys K, 4P(4NO),AC-1,  
440V, 20A, 24V DC coil, spring  
terminals

LP1K090043BD

## Main

|                           |                |
|---------------------------|----------------|
| Range                     | TeSys          |
| Product or component type | Contacteur     |
| Device short name         | LP1K           |
| Contacteur application    | Resistive load |

## Complementary

|   |   |
|---|---|
| Utilisation category                        | AC-1  |
| Poles description                           | 4P  |
| power pole contact composition              | 4 NO  |
| [Ue] rated operational voltage              | Power circuit <= 690 V AC <= 400 Hz<br>Signalling circuit <= 690 V AC <= 400 Hz   |
| [Ie] rated operational current              | 20 A (at <140 °F (60 °C)) at <= 690 V AC AC-1 for power circuit   |
| Control circuit type                        | DC standard   |
| [Uc] control circuit voltage                | 24 V DC   |
| [Uimp] rated impulse withstand voltage      | 8 kV  |
| Overvoltage category                        | III   |
| [Ith] conventional free air thermal current | 16 A (at 140 °F (60 °C)) for power circuit<br>10 A (at 122 °F (50 °C)) for signalling circuit   |
| Irms rated making capacity                  | 110 A AC for power 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  |
| [Icw] rated short-time withstand current    | 90 A 122 °F (50 °C) - 1 s for power circuit<br>85 A 122 °F (50 °C) - 5 s for power circuit<br>80 A 122 °F (50 °C) - 10 s for power circuit<br>60 A 122 °F (50 °C) - 30 s for power circuit<br>45 A 122 °F (50 °C) - 1 min for power circuit<br>40 A 122 °F (50 °C) - 3 min for power circuit<br>20 A 122 °F (50 °C) - >= 15 min for power circuit |
| Associated fuse rating                      | 25 A gG at <= 440 V for power circuit<br>25 A aM for power circuit  |
| Average impedance                           | 3 mOhm - Ith 16 A 50 Hz for power circuit   |
| [Ui] rated insulation voltage               | Power circuit 600 V UL 508<br>Power circuit 690 V IEC 60947-4-1<br>Power circuit 600 V CSA C22.2 No 14  |
| Inrush power in W                           | 3 W 68 °F (20 °C))  |

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>Hold-in power consumption in W</b> | 3 W 68 °F (20 °C)   |
| <b>Heat dissipation</b>               | 1.3 W   |
| <b>Control circuit voltage limits</b> | Operational: 0.8...1.15 U <sub>c</sub> (at <122 °F (50 °C))<br>Drop-out: >= 0.10 U <sub>c</sub> (at <122 °F (50 °C))  |
| <b>Connections - terminals</b>        | spring terminals 1 0.001...0.002 in <sup>2</sup> (0.75...1.5 mm <sup>2</sup> )solid<br>spring terminals 1 0.001...0.002 in <sup>2</sup> (0.75...1.5 mm <sup>2</sup> )flexible without cable end<br>spring terminals 2 0.001...0.002 in <sup>2</sup> (0.75...1.5 mm <sup>2</sup> )flexible without cable end |
| <b>Maximum operating rate</b>         | 3600 cyc/h  |
| <b>Coil technology</b>                | Without built-in suppressor module  |
| <b>Mounting support</b>               | Plate<br>Rail   |
| <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 EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1  |
| <b>Mechanical durability</b>          | 10 Mcycles  |
| <b>Electrical durability</b>          | 0.16 Mcycles 20 A AC-1 <= 690 V   |
| <b>Height</b>                         | 2.3 in (58 mm)  |
| <b>Width</b>                          | 1.8 in (45 mm)  |
| <b>Depth</b>                          | 2.2 in (57 mm)  |
| <b>Net weight</b>                     | 0.496 lb(US) (0.225 kg)   |

## Environment

|  |  |
|--|--|
| <b>Standards</b>                             | 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 |
| <b>Product certifications</b>                | CB Scheme<br>CCC<br>UL<br>CSA<br>EAC<br>CE<br>UKCA   |
| <b>IP degree of protection</b>               | IP2X   |
| <b>Ambient air temperature for operation</b> | -13...122 °F (-25...50 °C)   |
| <b>Ambient air temperature for storage</b>   | -58...176 °F (-50...80 °C)   |
| <b>Operating altitude</b>                    | 2000 m without derating  |
| <b>Flame retardance</b>                      | V1 UL 94<br>Requirement 2 NF F 16-101<br>Requirement 2 NF F 16-102   |

## Packing Units

|                                     |                     |
|-------------------------------------|---------------------|
| <b>Unit Type of Package 1</b>       | PCE                 |
| <b>Number of Units in Package 1</b> | 1                   |
| <b>Package 1 Height</b>             | 1.929 in (4.900 cm) |
| <b>Package 1 Width</b>              | 2.402 in (6.100 cm) |
| <b>Package 1 Length</b>             | 2.677 in (6.800 cm) |

|                                     |                          |
|-------------------------------------|--------------------------|
| <b>Package 1 Weight</b>             | 7.901 oz (224.000 g)     |
| <b>Unit Type of Package 2</b>       | S02                      |
| <b>Number of Units in Package 2</b> | 40                       |
| <b>Package 2 Height</b>             | 5.906 in (15.000 cm)     |
| <b>Package 2 Width</b>              | 11.811 in (30.000 cm)    |
| <b>Package 2 Length</b>             | 15.748 in (40.000 cm)    |
| <b>Package 2 Weight</b>             | 20.710 lb(US) (9.394 kg) |

## **Contractual warranty**

|                             |    |
|-----------------------------|----|
| <b>Warranty (in months)</b> | 18 |
|-----------------------------|----|



## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)



### Environmental footprint

|  |                |
|--|----------------|
| Total lifecycle Carbon footprint                       | 150 kg CO2 eq. |
| Carbon footprint of the manufacturing phase [A1 to A3] | 1 kg CO2 eq.   |
| Carbon footprint of the distribution phase [A4]        | 0.1 kg CO2 eq. |
| Carbon footprint of the installation phase [A5]        | 0 kg CO2 eq.   |
| Carbon footprint of the use phase [B2, B3, B4, B6]     | 149 kg CO2 eq. |
| Carbon footprint of the end-of-life phase [C1 to C4]   | 0.4 kg CO2 eq. |

## Use Better



### Materials and Substances

|  |   |
|--|---|
| Packaging made with recycled cardboard | Yes   |
| Packaging without single use plastic   | Yes   |
| EU RoHS Directive                      | <a href="#">Compliant</a>   |
| REACH Regulation                       | <a href="#">Free of Substances of Very High Concern above the threshold</a> |

## Use Longer




### Lifetime extension

|        |    |
|--------|----|
| Repair | No |
|--------|----|

## Use Again



### Repack and remanufacture

|                               |   |
|-------------------------------|---|
| Recyclability potential, in % | 64  |
| Circularity Profile           | <a href="#">End of Life Information</a>   |
| Take-back                     | Nej   |
| WEEE Label                    |  The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

Offer Marketing Illustration

Product benefits / Features

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## TeSys K

### Technical Benefits



- Built-in in all 3 pole versions: 1NO or 1NC
- Up to 4 more by add-on blocks
- Up to 16 A for motor control (AC3/ AC3E) and 20A for resistive load control (AC1)
- Available as single contactors, star-delta, and reversing combos, with a wealth of options and accessories
- Control Options:
  - AC: 24 to 660/690 V, standard or low-noise versions
  - DC: 12 to 250V, standard or low consumption (1.8 W) versions
- Thermal protection relays
- It Features specific versions for railway (TeSys S207) and electrodomestic (TeSys S335) applications

Offer Marketing Illustration

Product benefits / Features

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## TeSys K Contactors



### Flexibility

Designed with control voltages, low consumption, minimal noise levels, robust power connections, and a range of auxiliaries, and application-specific variants to meet diverse needs.



### Safety

It provide ultimate protection with IP20 finger-safe terminals, built-in NO/NC auxiliary contacts, and IEC-certified mirror and mechanically linked contacts for safety applications.



### Compact size

Up to 50% less volume is captured in your panels. One of the smallest contactors offerings in the market



Technical Illustration

Assembly's dimensions

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