

# Product data sheet

Specifications



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

LP1K090045BD

## Main

Range	TeSys
Product or component type	Contactors
Contactors application	Resistive load

## Complementary

Utilisation category	AC-1
Poles description	4P
power pole contact composition	4 NO
[Ue] rated operational voltage	Power circuit: $\leq 690$ V AC $\leq 400$ Hz Signalling circuit: $\leq 690$ V AC $\leq 400$ Hz
[Ie] rated operational current	20 A (at $\leq 60$ °C) at $\leq 690$ 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 60 °C) for power circuit 10 A (at 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 110 A at 380...400 V conforming to IEC 60947 110 A at 415 V conforming to IEC 60947 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	90 A 50 °C - 1 s for power circuit 85 A 50 °C - 5 s for power circuit 80 A 50 °C - 10 s for power circuit 60 A 50 °C - 30 s for power circuit 45 A 50 °C - 1 min for power circuit 40 A 50 °C - 3 min for power circuit 20 A 50 °C - $\geq 15$ min for power circuit
Associated fuse rating	25 A gG at $\leq 440$ V for power circuit 25 A aM for power circuit
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 Power circuit: 600 V conforming to CSA C22.2 No 14
Inrush power in W	3 W (at 20 °C)
Hold-in power consumption in W	3 W at 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 <50 °C) Drop-out: >= 0.10 U <sub>c</sub> (at <50 °C)
<b>Connections - terminals</b>	Solder pins (external diameter: 0.035 mm)
<b>Maximum operating rate</b>	3600 cyc/h
<b>Mounting support</b>	Printed circuit boards
<b>Operating time</b>	30...40 ms coil energisation and NO closing 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 B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1
<b>Mechanical durability</b>	10 Mcycles
<b>Electrical durability</b>	0.16 Mcycles 20 A AC-1 at U <sub>e</sub> <= 690 V
<b>Height</b>	58 mm
<b>Width</b>	45 mm
<b>Depth</b>	57 mm
<b>Net weight</b>	0.225 kg

## Environment

<b>Standards</b>	EN/IEC 60947-4-1 EN/IEC 60947-5-1 UL 60947-4-1 UL 60947-5-1 CSA C22.2 No 60947-4-1 CSA C22.2 No 60947-5-1 GB/T 14048.4
<b>Product certifications</b>	CB Scheme CCC UL CSA EAC CE UKCA
<b>IP degree of protection</b>	IP2X
<b>Ambient air temperature for operation</b>	-25...50 °C
<b>Ambient air temperature for storage</b>	-50...80 °C
<b>Operating altitude</b>	2000 m without derating
<b>Flame retardance</b>	V1 conforming to UL 94 Requirement 2 conforming to NF F 16-101 Requirement 2 conforming to 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>	4.900 cm
<b>Package 1 Width</b>	6.300 cm
<b>Package 1 Length</b>	7.000 cm
<b>Package 1 Weight</b>	244.000 g
<b>Unit Type of Package 2</b>	S02
<b>Number of Units in Package 2</b>	40

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<b>Package 2 Height</b>	15.000 cm
<b>Package 2 Width</b>	30.000 cm
<b>Package 2 Length</b>	40.000 cm
<b>Package 2 Weight</b>	10.175 kg

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## **Contractual warranty**

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<b>Warranty</b>	18 months
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## 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 >](#)

 <b>Environmental footprint</b>	
Total lifecycle Carbon footprint	150
Environmental Disclosure	<a href="#">Product Environmental Profile</a>

### Use Better

 <b>Materials and Substances</b>	
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
<a href="#">EU RoHS Directive</a>	Compliant
REACH Regulation	<a href="#">REACH Declaration</a>
California proposition 65	<b>WARNING:</b> 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>

### Use Again

 <b>Repack and remanufacture</b>	
End of life manual availability	<a href="#">End of Life Information</a>
Take-back	No
WEEE Label	 <b>The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins</b>

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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