



ⓘ Discontinued

has not been replaced. Please contact your customer care center for more information.

## Main

Range	TeSys
Product or component type	Contacteur
Product name	TeSys K
Device short name	LP1K
Device application	Control
Contacteur application	Motor control Resistive load

## Complementary

Utilisation category	AC-3 AC-4 AC-1
Poles description	3P
Power pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit: 690 V AC 50/60 Hz Signalling circuit: $\leq$ 690 V AC 50/60 Hz
[Ie] rated operational current	20 A (at $\leq$ 50 °C) at $\leq$ 440 V AC AC-1 for power circuit 9 A at $\leq$ 440 V AC AC-3 for power circuit 16 A (at $\leq$ 70 °C) at 690 V AC AC-1 for power circuit
Control circuit type	DC standard
[Uc] control circuit voltage	24 V DC
Motor power kW	4 kW at 480 V AC 50/60 Hz 4 kW at 500...600 V AC 50/60 Hz 4 kW at 660...690 V AC 50/60 Hz 2.2 kW at 220...230 V AC 50/60 Hz 4 kW at 380...415 V AC 50/60 Hz 4 kW at 440 V AC 50/60 Hz
Auxiliary contact composition	1 NC
[Uimp] rated impulse withstand voltage	8 kV
Oversvoltage category	III
[Ith] conventional free air thermal current	20 A (at 50 °C) for power circuit 10 A (at 50 °C) for signalling circuit
Irms rated making capacity	110 A AC for power circuit conforming to NF C 63-110 110 A AC for power circuit conforming to IEC 60947 110 A AC for signalling circuit conforming to IEC 60947
Rated breaking capacity	110 A at 415 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

	110 A at 440 V conforming to IEC 60947 80 A at 500 V conforming to IEC 60947 110 A at 220...230 V conforming to IEC 60947 110 A at 380...400 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 - >= 15 min for power circuit 80 A - 1 s for signalling circuit 90 A - 500 ms for signalling circuit 110 A - 100 ms for signalling circuit
Associated fuse rating	25 A gG at <= 440 V for power circuit 25 A aM for power circuit 10 A gG for signalling circuit conforming to IEC 60947 10 A gG for signalling circuit conforming to VDE 0660
Average impedance	3 mOhm - Ith 20 A 50 Hz for power circuit
[U] rated insulation voltage	Power circuit: 600 V conforming to UL 508 Power circuit: 690 V conforming to IEC 60947-4-1 Signalling circuit: 690 V conforming to IEC 60947-4-1 Signalling circuit: 690 V conforming to IEC 60947-5-1 Signalling circuit: 600 V conforming to UL 508 Power circuit: 600 V conforming to CSA C22.2 No 14 Signalling circuit: 600 V conforming to CSA C22.2 No 14
Insulation resistance	> 10 MOhm for signalling circuit
Inrush power in W	3 W (at 20 °C)
Hold-in power consumption in W	3 W at 20 °C
Heat dissipation	3 W
Control circuit voltage limits	Operational: 0.8...1.15 U <sub>c</sub> (at <50 °C) Drop-out: 0.1...0.75 U <sub>c</sub> (at <50 °C)
Connections - terminals	Lugs-ring terminals (external diameter: 7 mm)
Maximum operating rate	3600 cyc/h
Auxiliary contacts type	type instantaneous 1 NC
Minimum switching current	5 mA for signalling circuit
Minimum switching voltage	17 V for signalling circuit
Mounting support	Plate Rail
Operating time	30...40 ms coil energisation and NO closing 10 ms coil de-energisation and NO opening
Safety reliability level	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
Non overlap distance	0.5 mm
Mechanical durability	10 Mcycles
Electrical durability	0.18 Mcycles 20 A AC-1 at U <sub>e</sub> <= 440 V 1.3 Mcycles 9 A AC-3 at U <sub>e</sub> <= 440 V
Mechanical robustness	Shocks contactor closed, on Z axis: 15 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 Shocks contactor opened, on X axis: 10 Gn for 11 ms conforming to IEC 60068-2-27 Shocks contactor opened, on Y axis: 6 Gn for 11 ms conforming to IEC 60068-2-27 Shocks contactor closed, on X axis: 15 Gn for 11 ms conforming to IEC 60068-2-27 Shocks contactor closed, on Y axis: 10 Gn for 11 ms conforming to IEC 60068-2-27
Height	58 mm
Width	45 mm
Depth	57 mm
Net weight	0.225 kg

## Environment

Standards	BS 5424
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IEC 60947  
NF C 63-110  
VDE 0660

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Product certifications	UL CSA
IP degree of protection	IP2x conforming to VDE 0106
Protective treatment	TC conforming to IEC 60068 TC conforming to DIN 50016
Ambient air temperature for operation	-25...50 °C
Ambient air temperature for storage	-50...80 °C
Operating altitude	2000 m without
Flame retardance	V1 conforming to UL 94 Requirement 2 conforming to NF F 16-101 Requirement 2 conforming to NF F 16-102

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### Contractual warranty

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Warranty	18 months
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