



ⓘ Discontinued

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

Main

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

Complementary

Utilisation category	AC-1 AC-3 AC-4
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	12 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
Overvoltage 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

	<p>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</p>
[Icw] rated short-time withstand current	<p>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</p>
Associated fuse rating	<p>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</p>
Average impedance	3 mOhm - Ith 20 A 50 Hz for power circuit
[U] rated insulation voltage	<p>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</p>
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	<p>Operational: 0.8...1.15 U_c (at <50 °C) Drop-out: 0.1...0.75 U_c (at <50 °C)</p>
Connections - terminals	<p>Screw clamp terminals 1 cable(s) 1.5...4 mm²solid Screw clamp terminals 1 cable(s) 0.75...4 mm²flexible without cable end Screw clamp terminals 1 cable(s) 0.34...2.5 mm²flexible with cable end Screw clamp terminals 2 cable(s) 1.5...4 mm²solid Screw clamp terminals 2 cable(s) 0.75...4 mm²flexible without cable end Screw clamp terminals 2 cable(s) 0.34...1.5 mm²flexible with cable end</p>
Maximum operating rate	3600 cyc/h
Coil technology	Built-in bidirectional peak limiting diode suppressor
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	<p>Plate Rail</p>
Tightening torque	<p>1.3 N.m - on screw clamp terminals - with screwdriver Philips No 2 1.3 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm</p>
Operating time	<p>30...40 ms coil energisation and NO closing 10 ms coil de-energisation and NO opening</p>
Safety reliability level	<p>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</p>
Non overlap distance	0.5 mm
Mechanical durability	10 Mcycles
Electrical durability	<p>0.18 Mcycles 20 A AC-1 at U_e <= 440 V 1.3 Mcycles 9 A AC-3 at U_e <= 440 V</p>
Mechanical robustness	<p>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</p>
Height	58 mm

Width	45 mm
Depth	57 mm
Net weight	0.225 kg

Environment

Standards	BS 5424 IEC 60947 NF C 63-110 VDE 0660
Product certifications	CSA UL
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

Contractual warranty

Warranty	18 months
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