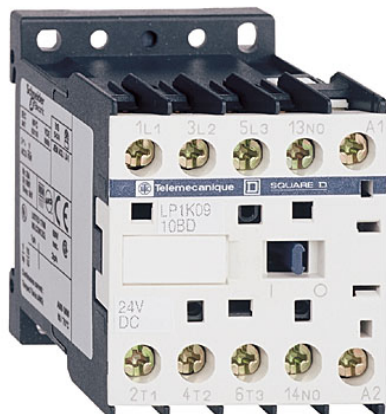


# LP1K0901BD3

contactor TeSys LP1-K - 3 poles - AC-3 440V 9 A - coil 24 V DC



## Main

Range of product	TeSys K
Product or component type	Contacteur
Device short name	LP1K
Contacteur application	Motor control Resistive load
Utilisation category	AC-1 AC-3
Control circuit type	DC
Coil type	Standard
Poles description	3P
Pole contact composition	3 NO
[Ie] rated operational current	9 A AC AC-3 for power circuit 20 A (<= 50 °C) AC AC-1 for power circuit
Motor power kW	4 kW at 380...415 V AC 50/60 Hz 4 kW at 440...500 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
Motor power hp	2 hp at 200/208 V AC 60 Hz conforming to CSA 2 hp at 200/208 V AC 60 Hz conforming to UL 3 hp at 230/240 V AC 60 Hz conforming to CSA 3 hp at 230/240 V AC 60 Hz conforming to UL 5 hp at 460/480 V AC 60 Hz conforming to CSA 5 hp at 460/480 V AC 60 Hz conforming to UL 5 hp at 575/600 V AC 60 Hz conforming to CSA 5 hp at 575/600 V AC 60 Hz conforming to UL
Auxiliary contact composition	1 NC
Control circuit voltage	24 V DC
Connections - terminals	Screw clamp terminal power circuit: 1 cable 0.34...2.5 mm <sup>2</sup> - cable stiffness: flexible - with cable end Screw clamp terminal power circuit: 1 cable 0.75...4 mm <sup>2</sup> - cable stiffness: flexible - without cable end Screw clamp terminal power circuit: 1 cable 1.5...4 mm <sup>2</sup> - cable stiffness: solid - without cable end Screw clamp terminal power circuit: 2 cable 0.34...2.5 mm <sup>2</sup> - cable stiffness: flexible - with cable end Screw clamp terminal power circuit: 2 cable 0.75...4 mm <sup>2</sup> - cable stiffness: flexible - without cable end Screw clamp terminal power circuit: 2 cable 1.5...4 mm <sup>2</sup> - cable stiffness: solid - without cable end

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## Complementary

Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	$\geq 0.10 U_c$ at $\leq 50^\circ\text{C}$ drop-out $0.8 \dots 1.15 U_c$ at $\leq 50^\circ\text{C}$ operational
[Ui] rated insulation voltage	600 V conforming to CSA C22-2 No 14 for control circuit 600 V certifications UL 508 conforming to CSA C22-2 No 14 for power circuit 690 V conforming to BS 5424 for control circuit 690 V conforming to IEC 60947 for control circuit 690 V conforming to BS 5424 for power circuit 690 V conforming to IEC 60947 for power circuit 690 V conforming to NF C 20-040 for power circuit 750 V conforming to VDE 0110 group C for control circuit 750 V conforming to VDE 0110 group C for power circuit
[Uimp] rated impulse withstand voltage	8 kV
Mounting support	Plate Rail
Flame retardance	Class C2 conforming to NF F 16-101 Class C2 conforming to NF F 16-102 V1 conforming to UL 94
Tightening torque	0.8...1.3 N.m power circuit: - on screw clamp terminal - with screwdriver flat $\varnothing 6$ mm 0.8...1.3 N.m power circuit: - on screw clamp terminal - with screwdriver Philips No 2
[Ue] rated operational voltage	$\leq 690$ V AC $\leq 400$ Hz for power circuit
[Ith] conventional free air thermal current	10 A at $\leq 50^\circ\text{C}$ for control circuit 20 A at $\leq 50^\circ\text{C}$ for power circuit
Irms rated making capacity	110 A at 690 V AC for control circuit conforming to IEC 60947 110 A at 690 V AC for power circuit conforming to IEC 60947 110 A at 690 V AC for power circuit conforming to NF C 63-110
Rated breaking capacity	110 A at 220...230 V for power circuit conforming to IEC 60947 110 A at 220...230 V for power circuit conforming to NF C 63-110 110 A at 380...400 V for power circuit conforming to IEC 60947 110 A at 380...400 V for power circuit conforming to NF C 63-110 110 A at 415 V for power circuit conforming to IEC 60947 110 A at 415 V for power circuit conforming to NF C 63-110 110 A at 440 V for power circuit conforming to IEC 60947 110 A at 440 V for power circuit conforming to NF C 63-110 70 A at 660...690 V for power circuit conforming to IEC 60947 70 A at 660...690 V for power circuit conforming to NF C 63-110 80 A at 500 V for power circuit conforming to IEC 60947 80 A at 500 V for power circuit conforming to NF C 63-110
Permissible short-time rating	20 A ( $\leq 50^\circ\text{C}$ ) - short time current duration: $\geq 15$ min - for power circuit 40 A ( $\leq 50^\circ\text{C}$ ) - short time current duration: 3 min - for power circuit 45 A ( $\leq 50^\circ\text{C}$ ) - short time current duration: 1 min - for power circuit 60 A ( $\leq 50^\circ\text{C}$ ) - short time current duration: 30 s - for power circuit 80 A ( $\leq 50^\circ\text{C}$ ) - short time current duration: 10 s - for power circuit 85 A ( $\leq 50^\circ\text{C}$ ) - short time current duration: 5 s - for power circuit 90 A ( $\leq 50^\circ\text{C}$ ) - short time current duration: 1 s - for power circuit
Associated fuse rating	10 A gG for control circuit conforming to IEC 60947 10 A gG for control circuit conforming to VDE 0660 25 A gG at $\leq 440$ V for power circuit
Average impedance	3 mOhm at 50 Hz - Ith 20 A for power circuit
Inrush power in W	3 W at $20^\circ\text{C}$
Hold-in power consumption in W	3 W at $20^\circ\text{C}$
Operating time	10 ms coil de-energisation and NO opening 15 ms coil de-energisation and NC opening 25...35 ms coil energisation and NC opening 30...40 ms between energisation of coil and closing of NO contact
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
Mechanical durability	10000000 cycles
Operating rate	3600 cyc/h
Minimum switching current	5 mA for control circuit
Minimum switching voltage	17 V for control circuit
Insulation resistance	$> 10$ MOhm for control circuit

Rated operational power in W	120 W at 24 V DC-13 - electrical durability: 1000000 cycles - for control circuit 15 W at 24 V DC-13 - electrical durability: 10000000 cycles - for control circuit 55 W at 24 V DC-13 - electrical durability: 3000000 cycles - for control circuit
Height	58 mm
Width	45 mm
Depth	57 mm
Product weight	0.225 kg

## Environment

Standards	BS 5424 IEC 60947 NF C 63-110 VDE 0660
Product certifications	CSA GOST UL
IP degree of protection	IP2x conforming to VDE 0106
Protective treatment	TC conforming to IEC 60068
Ambient air temperature for operation	-25...50 °C
Ambient air temperature for storage	-50...80 °C
Operating altitude	2000 m without derating in temperature
Fire resistance	850 °C conforming to IEC 60695-2-1
Shock resistance	10 gn contactor closed 6 gn contactor opened
Vibration resistance	2 gn contactor opened 5...300 Hz 4 gn contactor closed 5...300 Hz
Heat dissipation	3 W for control circuit