

Product datasheet

Characteristics

LP1K0901BD

TeSys K contactor - 3P - AC-3 $\leq$ 440 V 9 A - 1 NC
aux. - 24 V DC coil



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
Pole contact composition	3 NO
[Ue] rated operational voltage	690 V AC 50/60 Hz for power circuit $\leq$ 690 V AC 50/60 Hz for signalling circuit
[Ie] rated operational current	9 A at $\leq$ 440 V AC AC-3 for power circuit 20 A ($\leq$ 50 °C) at $\leq$ 440 V AC AC-1 for power circuit 16 A ($\leq$ 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	2.2 kW at 400 V AC 50/60 Hz AC-4 2.2 kW at 220...230 V AC 50/60 Hz AC-3 4 kW at 380...415 V AC 50/60 Hz AC-3 4 kW at 440 V AC 50/60 Hz AC-3 4 kW at 480 V AC 50/60 Hz AC-3 4 kW at 500...600 V AC 50/60 Hz AC-3 4 kW at 660...690 V AC 50/60 Hz AC-3
Auxiliary contact composition	1 NC
[Uimp] rated impulse withstand voltage	8 kV
Overvoltage category	III
[Ith] conventional free air thermal current	20 A at $\leq$ 50 °C for power circuit 10 A at $\leq$ 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 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 $\leq$ 50 °C 1 s power circuit 85 A $\leq$ 50 °C 5 s power circuit 80 A $\leq$ 50 °C 10 s power circuit 60 A $\leq$ 50 °C 30 s power circuit 45 A $\leq$ 50 °C 1 min power circuit 40 A $\leq$ 50 °C 3 min power circuit 80 A 1 s signalling circuit

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	90 A 500 ms signalling circuit 110 A 100 ms signalling circuit 20 A <= 50 °C >= 15 min power 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 at 50 Hz - lth 20 A for power circuit
[Ui] rated insulation voltage	690 V for power circuit conforming to IEC 60947-4-1 600 V for power circuit conforming to UL 508 690 V for signalling circuit conforming to IEC 60947-4-1 690 V for signalling circuit conforming to IEC 60947-5-1 600 V for signalling circuit conforming to UL 508 600 V for power circuit conforming to CSA C22.2 No 14 600 V for signalling circuit 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	0.8...1.15 U _c at <= 50 °C operational 0.1...0.75 U _c at <= 50 °C drop-out
Connections - terminals	Screw clamp terminals 1 cable(s) 1.5...4 mm ² - cable stiffness: solid Screw clamp terminals 1 cable(s) 0.75...4 mm ² - cable stiffness: flexible - without cable end Screw clamp terminals 1 cable(s) 0.34...2.5 mm ² - cable stiffness: flexible - with cable end Screw clamp terminals 2 cable(s) 1.5...4 mm ² - cable stiffness: solid Screw clamp terminals 2 cable(s) 0.75...4 mm ² - cable stiffness: flexible - without cable end Screw clamp terminals 2 cable(s) 0.34...1.5 mm ² - cable stiffness: flexible - with cable end
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
Tightening torque	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
Operating time	10 ms coil de-energisation and NO opening 30...40 ms coil energisation and NO closing
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 _e <= 440 V 1.3 Mcycles 9 A AC-3 at U _e <= 440 V
Mechanical robustness	Shocks contactor closed, on Z axis 15 Gn for 11 ms IEC 60068-2-27 Shocks contactor opened, on Z axis 10 Gn for 11 ms IEC 60068-2-27 Vibrations contactor closed 4 Gn, 5...300 Hz IEC 60068-2-6 Vibrations contactor opened 2 Gn, 5...300 Hz IEC 60068-2-6 Shocks contactor opened, on X axis 10 Gn for 11 ms IEC 60068-2-27 Shocks contactor opened, on Y axis 6 Gn for 11 ms IEC 60068-2-27 Shocks contactor closed, on X axis 15 Gn for 11 ms IEC 60068-2-27 Shocks contactor closed, on Y axis 10 Gn for 11 ms IEC 60068-2-27
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
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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 derating in temperature
flame retardance	V1 conforming to UL 94 Requirement 2 conforming to NF F 16-101 Requirement 2 conforming to NF F 16-102

Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0633 - Schneider Electric declaration of conformity
REACH	Reference not containing SVHC above the threshold
Product environmental profile	Available
Product end of life instructions	Available

Contractual warranty

Warranty period	18 months
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