Product datasheet

Specifications

TeSys K contactor - 3P - AC-3 <= 440 V 9 A - 1 NO aux. - 24 V DC coil

LP1K0910BD

Main

Range	TeSys
product or component type	Contactor
Device short name	LP1K
contactor application	Motor control Resistive load

Complementary

Utilisation category	AC-3 AC-3e AC-1 AC-4
poles description	3P
power pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit: <= 690 V AC <= 400 Hz Signalling circuit: <= 690 V AC <= 400 Hz
[Ie] rated operational current	9 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 9 A (at <60 °C) at <= 440 V AC AC-3e for power circuit 20 A (at <60 °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 220...230 V AC 50/60 Hz AC-3 4 kW at 380...415 V AC 50/60 Hz AC-3 4 kW at 440/690 V AC 50/60 Hz AC-3 2.2 kW at 220...230 V AC 50/60 Hz AC-3e 4 kW at 380...415 V AC 50/60 Hz AC-3e 4 kW at 440/690 V AC 50/60 Hz AC-3e 2.2 kW at 220...230 V AC 50/60 Hz AC-4 4 kW at 380...415 V AC 50/60 Hz AC-4 4 kW at 440/690 V AC 50/60 Hz AC-4
Auxiliary contact composition	1 NO
[Uimp] rated impulse withstand voltage	8 kV
Overvoltage category	III
[Ith] conventional free air thermal current	20 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 110 A AC for signalling 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

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

[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
[Ui] 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	1.3 W
Control circuit voltage limits	Operational: 0.8...1.15 Uc (at <50 °C) Drop-out: >= 0.10 Uc (at <50 °C)
Connections - terminals	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 Power circuit: screw clamp terminals 2 cable(s) 1.5 mm²flexible with cable end
Maximum operating rate	3600 cyc/h
Auxiliary contacts type	type instantaneous 1 NO
Minimum switching current	5 mA for signalling circuit
Minimum switching voltage	17 V for signalling circuit
mounting support	Rail Plate
Tightening torque	0.8…1.3 N.m - on screw clamp terminals Philips No 2 0.8…1.3 N.m - on screw clamp terminals flat Ø 6 mm 0.8…1.3 N.m - on screw clamp terminals pozidriv No 2
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
Mechanical durability	10 Mcycles
Electrical durability	1.3 Mcycles 9 A AC-3 at Ue <= 440 V 1.3 Mcycles 9 A AC-3e at Ue <= 440 V 0.16 Mcycles 20 A AC-1 at Ue <= 690 V 0.02 Mcycles 54 A AC-4 at Ue <= 440 V
Height	58 mm
Width	45 mm
Depth	57 mm

net weight	0.225 kg

Environment

Standards	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
Product certifications	CB Scheme CCC UL CSA EAC CE UKCA
IP degree of protection	IP2X
Ambient air temperature for operation	-25…50 °C
Ambient air temperature for storage	-50…80 °C
Operating altitude	2000 m without derating
Flame retardance	V1 conforming to UL 94 Requirement 2 conforming to NF F 16-101 Requirement 2 conforming to NF F 16-102

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.000 cm
Package 1 Width	6.000 cm
Package 1 Length	6.500 cm
Package 1 Weight	223.000 g
Unit Type of Package 2	S02
Number of Units in Package 2	40
Package 2 Height	15.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	9.168 kg
Unit Type of Package 3	P06
Number of Units in Package 3	640
Package 3 Height	75.000 cm
Package 3 Width	80.000 cm
Package 3 Length	60.000 cm
Package 3 Weight	154.688 kg

Contractual warranty

Warranty	18 months

Sustainability

Green Premium™ label is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO_2 products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >

Transparency RoHS/REACh

Well-being performance

Reach Free Of Svhc	
Toxic Heavy Metal Free	
Mercury Free	
Rohs Exemption Information	Yes

Certifications & Standards

Reach Regulation	REACh Declaration
Eu Rohs Directive	Compliant EU RoHS Declaration
China Rohs Regulation	China RoHS declaration Pro-active China RoHS declaration (out of China RoHS legal scope)
Environmental Disclosure	Product Environmental Profile
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
Circularity Profile	End of Life Information