Product data sheet

Specifications

contactor, TeSys K, 4P(4NO),AC-1, 440V, 20A, 24V DC coil, spring terminals

LP1K090043BD

Main

Range	TeSys
Product or component type	Contactor
Device short name	LP1K
Contactor application	Resistive load

Complementary

Utilisation category	AC-1
Poles description	4P
power pole contact composition	4 NO
[Ue] rated operational voltage	Power circuit <= 690 V AC <= 400 Hz Signalling circuit <= 690 V AC <= 400 Hz
[Ie] rated operational current	20 A (at <140 °F (60 °C)) at <= 690 V AC AC-1 for power circuit
Control circuit type	DC standard
[Uc] control circuit voltage	24 V DC
[Uimp] rated impulse withstand voltage	8 kV
Overvoltage category	III
[Ith] conventional free air thermal current	16 A (at 140 °F (60 °C)) for power circuit 10 A (at 122 °F (50 °C)) for signalling circuit
Irms rated making capacity	110 A AC for power 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
[Icw] rated short-time withstand current	90 A 122 °F (50 °C) - 1 s for power circuit 85 A 122 °F (50 °C) - 5 s for power circuit 80 A 122 °F (50 °C) - 10 s for power circuit 60 A 122 °F (50 °C) - 30 s for power circuit 45 A 122 °F (50 °C) - 1 min for power circuit 40 A 122 °F (50 °C) - 3 min for power circuit 20 A 122 °F (50 °C) - >= 15 min for power circuit
Associated fuse rating	25 A gG at <= 440 V for power circuit 25 A aM for power circuit
Average impedance	3 mOhm - Ith 16 A 50 Hz for power circuit
[Ui] rated insulation voltage	Power circuit 600 V UL 508 Power circuit 690 V IEC 60947-4-1 Power circuit 600 V CSA C22.2 No 14
Inrush power in W	3 W 68 °F (20 °C))

Hold-in power consumption in W	3 W 68 °F (20 °C)
Heat dissipation	1.3 W
Control circuit voltage limits	Operational: 0.8...1.15 Uc (at <122 °F (50 °C)) Drop-out: >= 0.10 Uc (at <122 °F (50 °C))
Connections - terminals	spring terminals 1 0.001…0.002 in² (0.75…1.5 mm²)solid spring terminals 1 0.001…0.002 in² (0.75…1.5 mm²)flexible without cable end spring terminals 2 0.001…0.002 in² (0.75…1.5 mm²)flexible without cable end
Maximum operating rate	3600 cyc/h
Coil technology	Without built-in suppressor module
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 EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1
Mechanical durability	10 Mcycles
Electrical durability	0.16 Mcycles 20 A AC-1 <= 690 V
Height	2.3 in (58 mm)
Width	1.8 in (45 mm)
Depth	2.2 in (57 mm)
Net weight	0.496 lb(US) (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	-13…122 °F (-25…50 °C)
Ambient air temperature for storage	-58…176 °F (-50…80 °C)
Operating altitude	2000 m without derating
Flame retardance	V1 UL 94 Requirement 2 NF F 16-101 Requirement 2 NF F 16-102

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	1.929 in (4.900 cm)
Package 1 Width	2.402 in (6.100 cm)
Package 1 Length	2.677 in (6.800 cm)

Package 1 Weight	7.901 oz (224.000 g)
Unit Type of Package 2	S02
Number of Units in Package 2	40
Package 2 Height	5.906 in (15.000 cm)
Package 2 Width	11.811 in (30.000 cm)
Package 2 Length	15.748 in (40.000 cm)
Package 2 Weight	20.710 lb(US) (9.394 kg)

Contractual warranty

Warranty (in months)	18

Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

Environmental footprint

Total lifecycle Carbon footprint	**150 kg CO2 eq.**
Carbon footprint of the manufacturing phase [A1 to A3]	**1 kg CO2 eq.**
Carbon footprint of the distribution phase [A4]	**0.1 kg CO2 eq.**
Carbon footprint of the installation phase [A5]	**0 kg CO2 eq.**
Carbon footprint of the use phase [B2, B3, B4, B6]	**149 kg CO2 eq.**
Carbon footprint of the end-of-life phase [C1 to C4]	**0.4 kg CO2 eq.**

Use Better

Materials and Substances

Packaging made with recycled cardboard	**Yes**
Packaging without single use plastic	**Yes**
EU RoHS Directive	**Compliant**
REACh Regulation	**Free of Substances of Very High Concern above the threshold**

Use Longer

Lifetime extension

Repair	**No**

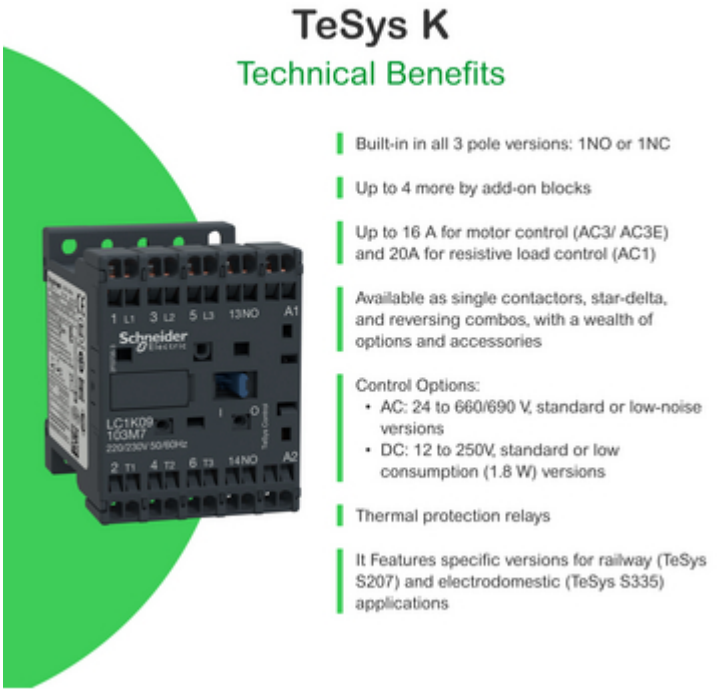
Use Again

Repack and remanufacture

Recyclability potential, in %	**64**
Circularity Profile	**End of Life Information**
Take-back	**Nej**
WEEE Label	**The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins**

Offer Marketing Illustration

Product benefits / Features



Offer Marketing Illustration

Product benefits / Features

Technical Illustration

Assembly's dimensions