

Product data sheet

Specifications



TeSys K contactor , 4P (2 NO + 2 NC) , AC,1 <= 440 V 20 A , 110 V AC coil

LC1K090087F72

⚠ Discontinued on: Aug 30, 2023

⚠ End-of-service on: Dec 31, 2023

⚠ Discontinued

Main

Range of product	TeSys K
Range	TeSys
Product name	TeSys K
Device application	Control
Product or component type	Contactor
Device short name	LC1K
Utilisation category	AC-1
Coil technology	Built-in bidirectional peak limiting diode suppressor
Poles description	4P
Pole contact composition	2 NO + 2 NC
[Ie] rated operational current	20 A (at <122 °F (50 °C)) at <= 440 V AC AC-1 for power circuit 16 A (at <158 °F (70 °C)) at 690 V AC AC-1 for power circuit
Signalling circuit frequency	<= 400 Hz

Complementary

Contactor application	Resistive load
Control circuit voltage limits	Operational: 0.8...1.15 Uc (at <122 °F (50 °C)) Drop-out: 0.2...0.75 Uc (at <122 °F (50 °C))
Control circuit type	AC 50/60 Hz
[Uc] control circuit voltage	110 V AC 50/60 Hz
Connections - terminals	Faston terminals 2 2.8 mm Faston terminals 1 6.35 mm
Electrical durability	0.18 Mcycles 20 A AC-1 <= 440 V
Mechanical robustness	Shocks contactor closed, on X axis10 Gn for 11 ms IEC 60068-2-27 Shocks contactor closed, on Y axis15 Gn for 11 ms IEC 60068-2-27 Shocks contactor closed, on Z axis15 Gn for 11 ms IEC 60068-2-27 Shocks contactor opened, on X axis6 Gn for 11 ms IEC 60068-2-27 Shocks contactor opened, on Y axis10 Gn for 11 ms IEC 60068-2-27 Shocks contactor opened, on Z axis10 Gn for 11 ms IEC 60068-2-27 Vibrations contactor closed4 Gn, 5...300 Hz IEC 60068-2-6 Vibrations contactor opened2 Gn, 5...300 Hz IEC 60068-2-6
Standards	EN/IEC 60947-4-1 GB/T 14048.4 UL 60947-4-1 CSA C22.2 No 60947-4-1 JIS C8201-4-1
IP degree of protection	IP2X VDE 0106

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

Protective treatment	TC IEC 60068 TC DIN 50016
[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
[Uimp] rated impulse withstand voltage	8 kV
Overvoltage category	III
Mounting support	Plate Rail
Product certifications	CB Scheme CCC UL CSA EAC CE UKCA
Ambient air temperature for storage	-58...176 °F (-50...80 °C)
Operating altitude	2000 m without derating
[Ue] rated operational voltage	Power circuit 690 V AC 50/60 Hz
[Ith] conventional free air thermal current	20 A (at 122 °F (50 °C)) for power 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
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
Associated fuse rating	25 A gG at <= 440 V for power circuit 25 A aM for power circuit
Average impedance	3 mOhm - Ith 20 A 50 Hz for power circuit
Inrush power in VA	30 VA (at 68 °F (20 °C))
Hold-in power consumption in VA	4.5 VA (at 68 °F (20 °C))
Operating time	10...20 ms coil de-energisation and NO opening 10...20 ms coil energisation and NO closing 15...25 ms coil de-energisation and NC closing 5...15 ms coil energisation and NC 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
Maximum operating rate	3600 cyc/h
Height	2.3 in (58 mm)
Width	1.8 in (45 mm)
Depth	2.2 in (57 mm)
Net weight	0.40 lb(US) (0.18 kg)
Compatibility code	LC1K

Environment

[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
Heat dissipation	1.3 W
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

Contractual warranty

Warranty (in months)	18
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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 >](#)

Use Longer

Lifetime extension	
Repair	No