

Product data sheet

Specifications



TeSys K contactor , 3P , AC-3 <= 440 V 9 A , 1 NO aux. , 110 V AC coil

LC1K09105F72

⚠ Discontinued on: Jul 24, 2022

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Main

Range of product	TeSys K
Range	TeSys
Product name	TeSys K
Device application	Control
Product or component type	Contacteur
Device short name	LC1K
Utilisation category	AC-1 AC-4 AC-3
Coil technology	Built-in bidirectional peak limiting diode suppressor
Poles description	3P
Pole contact composition	3 NO
[Ie] rated operational current	20 A (at <50 °C) at <= 440 V AC AC-1 for power circuit 9 A at <= 440 V AC AC-3 for power circuit 16 A (at <70 °C) at 690 V AC AC-1 for power circuit
[Uc] control circuit voltage	type instantaneous 1 NO
Signalling circuit frequency	<= 400 Hz
Non overlap distance	0.5 mm

Complementary

Contacteur application	Resistive load Motor control
Auxiliary contact composition	1 NO
Control circuit voltage limits	Operational: 0.8...1.15 Uc (at <50 °C) Drop-out: 0.2...0.75 Uc (at <50 °C)
Control circuit type	AC at 50/60 Hz
[Uc] control circuit voltage	110 V AC 50/60 Hz
Connections - terminals	Solder pins - busbar cross section: 1.5 x 0.9 mm
Electrical durability	0.18 Mcycles 20 A AC-1 at Ue <= 440 V 1.3 Mcycles 9 A AC-3 at Ue <= 440 V

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

Mechanical robustness	Shocks contactor closed, on X axis: 10 Gn for 11 ms conforming to IEC 60068-2-27 Shocks contactor closed, on Y axis: 15 Gn for 11 ms conforming to IEC 60068-2-27 Shocks contactor closed, on Z axis: 15 Gn for 11 ms conforming to IEC 60068-2-27 Shocks contactor opened, on X axis: 6 Gn for 11 ms conforming to IEC 60068-2-27 Shocks contactor opened, on Y axis: 10 Gn for 11 ms conforming to IEC 60068-2-27 Shocks contactor opened, on Z axis: 10 Gn for 11 ms conforming to IEC 60068-2-27 Vibrations contactor closed: 4 Gn, 5...300 Hz conforming to IEC 60068-2-6 Vibrations contactor opened: 2 Gn, 5...300 Hz conforming to 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 conforming to VDE 0106
Protective treatment	TC conforming to IEC 60068 TC conforming to DIN 50016
[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
[Uimp] rated impulse withstand voltage	8 kV
Overvoltage category	III
Mounting support	Printed circuit boards
Product certifications	CB Scheme CCC UL CSA EAC CE UKCA
Ambient air temperature for storage	-50...80 °C
Operating altitude	2000 m without derating
[Ue] rated operational voltage	Power circuit: 690 V AC 50/60 Hz Signalling circuit: <= 690 V AC 50/60 Hz
[Ith] conventional free air thermal current	20 A (at 50 °C) for power circuit 10 A (at 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
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
Inrush power in VA	30 VA (at 20 °C)
Hold-in power consumption in VA	4.5 VA (at 20 °C)
Operating time	10...20 ms coil de-energisation and NO opening 10...20 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
Mechanical durability	10 Mcycles
Maximum operating rate	3600 cyc/h
Minimum switching current	5 mA for signalling circuit
Minimum switching voltage	17 V for signalling circuit
Insulation resistance	> 10 MOhm for signalling circuit
Height	58 mm
Width	45 mm
Depth	57 mm
Net weight	0.18 kg
Compatibility code	LC1K

Environment

Motor power kW	4 kW at 480 V AC 50/60 Hz 4 kW at 500...600 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 4 kW at 380...415 V AC 50/60 Hz 4 kW at 440 V AC 50/60 Hz
[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
Heat dissipation	1.3 W
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

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