

Product data sheet

Specifications



contactor, TeSys K, 4P(2NO+2NC),
AC-1 440V 20A, 24V AC coil, faston
connectors

LC1K090085B7

⚠ Discontinued on: Jan 26, 2021

⚠ Discontinued

Main

Range	TeSys
Product or component type	Contactors
Device short name	LC1K
Device application	Control
Contactors application	Resistive load

Complementary

Utilisation category	AC-1
Poles description	4P
power pole contact composition	2 NO + 2 NC
[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	AC 50/60 Hz
[Uc] control circuit voltage	24 V AC 50/60 Hz
[Uimp] rated impulse withstand voltage	8 kV
Overvoltage category	III
[Ith] conventional free air thermal current	20 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 20 A 50 Hz for power circuit

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

[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 VA	30 VA (at 68 °F (20 °C))
Hold-in power consumption in VA	4.5 VA (at 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: >= 0.20 Uc (at <122 °F (50 °C))
Connections - terminals	solder pins 0.001 in (0.035 mm))
Maximum operating rate	3600 cyc/h
Coil technology	Without built-in suppressor module
Signalling circuit frequency	<= 400 Hz
Mounting support	Printed circuit boards
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
Electrical durability	0.16 Mcycles 20 A AC-1 <= 690 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
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)

Environment

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 IEC 60335-1:Clause 30.2 IEC 60335-2-40:Annex JJ UL 60335-2-40:Annex JJ
Product certifications	CB Scheme CCC UL CSA EAC CE UKCA
IP degree of protection	IP2X VDE 0106
Protective treatment	TC IEC 60068 TC DIN 50016
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	2.6 in (6.5 cm)
Package 1 Width	2.4 in (6.2 cm)
Package 1 Length	1.9 in (4.8 cm)
Package 1 Weight	7.3 oz (207.0 g)

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 >](#)



Environmental footprint

Total lifecycle Carbon footprint	90 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]	89 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	0.3 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
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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

TeSys K
Contactors



Flexibility

Designed with control voltages, low consumption, minimal noise levels, robust power connections, and a range of auxiliaries, and application-specific variants to meet diverse needs.



Safety

It provide ultimate protection with IP20 finger-safe terminals, built-in NO/NC auxiliary contacts, and IEC-certified mirror and mechanically linked contacts for safety applications.



Compact size

Up to 50% less volume is captured in your panels. One of he smallest contactors offerings in the market



Offer Marketing Illustration

Product benefits / Features

TeSys K
Technical Benefits



- Built-in in all 3 pole versions: 1NO or 1NC
- Up to 4 more by add-on blocks
- Up to 16 A for motor control (AC3/ AC3E) and 20A for resistive load control (AC1)
- Available as single contactors, star-delta, and reversing combos, with a wealth of options and accessories
- Control Options:
 - AC: 24 to 660/690 V, standard or low-noise versions
 - DC: 12 to 250V, standard or low consumption (1.8 W) versions
- Thermal protection relays
- It Features specific versions for railway (TeSys S207) and electrodomeestic (TeSys S335) applications