

# Product data sheet

Specifications



## TeSys K contactor , 3P , AC-3 <= 440 V 16 A , 1 NC aux. , 36 V AC coil

LC1K1601FC72

⚠ 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-3 AC-1
Coil technology	Built-in bidirectional peak limiting diode suppressor
Poles description	3P
Pole contact composition	3 NO
[Ie] rated operational current	16 A at <= 440 V AC-3 for power circuit 20 A at <= 690 V AC-1 for power circuit
[Uc] control circuit voltage	type instantaneous 1 NC
Signalling circuit frequency	<= 400 Hz
Non overlap distance	0.5 mm

### Complementary

Contacteur application	Motor control
Auxiliary contact composition	1 NC
Control circuit voltage limits	Operational: 0.8...1.15 U <sub>c</sub> (at <50 °C) Drop-out: 0.2...0.75 U <sub>c</sub> (at <50 °C)
Control circuit type	AC at 50/60 Hz
[Uc] control circuit voltage	36 V AC 50/60 Hz
Connections - terminals	Screw clamp terminals 1 cable(s) 1.5...4 mm <sup>2</sup> solid Screw clamp terminals 1 cable(s) 0.75...4 mm <sup>2</sup> flexible without cable end Screw clamp terminals 1 cable(s) 0.34...2.5 mm <sup>2</sup> flexible with cable end Screw clamp terminals 2 cable(s) 1.5...4 mm <sup>2</sup> solid Screw clamp terminals 2 cable(s) 0.75...4 mm <sup>2</sup> flexible without cable end Screw clamp terminals 2 cable(s) 0.34...1.5 mm <sup>2</sup> flexible with cable end
Electrical durability	1.3 Mcycles 16 A AC-3 at U <sub>e</sub> <= 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

<b>Mechanical robustness</b>	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
<b>Standards</b>	EN/IEC 60947-4-1 GB/T 14048.4 UL 60947-4-1 CSA C22.2 No 60947-4-1 JIS C8201-4-1
<b>IP degree of protection</b>	IP2X conforming to VDE 0106
<b>Protective treatment</b>	TC conforming to IEC 60068 TC conforming to DIN 50016
<b>Ambient air temperature for operation</b>	-25...50 °C
<b>[Ui] rated insulation voltage</b>	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
<b>[Uimp] rated impulse withstand voltage</b>	8 kV
<b>Overvoltage category</b>	III
<b>Mounting support</b>	Plate Rail
<b>Product certifications</b>	CB Scheme CCC UL CSA EAC CE UKCA
<b>Ambient air temperature for storage</b>	-50...80 °C
<b>Operating altitude</b>	2000 m without derating
<b>Tightening torque</b>	1.3 N.m - on screw clamp terminals - with screwdriver Philips No 2 1.3 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm
<b>[Ue] rated operational voltage</b>	Power circuit: 690 V AC 50/60 Hz Signalling circuit: 690 V AC 50/60 Hz
<b>[Ith] conventional free air thermal current</b>	20 A (at 50 °C) for power circuit 10 A (at 50 °C) for signalling circuit
<b>Irms rated making capacity</b>	110 A AC for signalling circuit conforming to IEC 60947 160 A AC for power circuit conforming to NF C 63-110 160 A AC for power circuit conforming to IEC 60947
<b>Rated breaking capacity</b>	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
<b>Associated fuse rating</b>	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
<b>Average impedance</b>	3 mOhm - Ith 20 A 50 Hz for power circuit
<b>Inrush power in VA</b>	30 VA (at 20 °C)
<b>Hold-in power consumption in VA</b>	4.5 VA (at 20 °C)
<b>Operating time</b>	10...20 ms coil de-energisation and NO opening 10...20 ms coil energisation and NO closing

<b>Safety reliability level</b>	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
<b>Mechanical durability</b>	10 Mcycles
<b>Maximum operating rate</b>	3600 cyc/h
<b>Minimum switching current</b>	5 mA for signalling circuit
<b>Minimum switching voltage</b>	17 V for signalling circuit
<b>Insulation resistance</b>	> 10 MOhm for signalling circuit
<b>Height</b>	58 mm
<b>Width</b>	45 mm
<b>Depth</b>	57 mm
<b>Net weight</b>	0.18 kg
<b>Compatibility code</b>	LC1K

## Environment

<b>Motor power kW</b>	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 5.5 kW at 440 V AC 50/60 Hz 4 kW at 220...230 V AC 50/60 Hz 7.5 kW at 380...415 V AC 50/60 Hz
<b>[Icw] rated short-time withstand current</b>	115 A 50 °C - 1 s for power circuit 105 A 50 °C - 5 s for power circuit 100 A 50 °C - 10 s for power circuit 75 A 50 °C - 30 s for power circuit 55 A 50 °C - 1 min for power circuit 50 A 50 °C - 3 min for power circuit 25 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
<b>Heat dissipation</b>	1.3 W
<b>Flame retardance</b>	V1 conforming to UL 94

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1

## Contractual warranty

<b>Warranty (in months)</b>	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