

# Product data sheet

Specifications



contactor, TeSys K, 4P(2NO+2NC), AC-1 440V 20A, 48V AC coil

LC1K09008E7

## Main

Range	TeSys
Product or component type	Contacteur
Product name	TeSys K
Device short name	LC1K
Device application	Control
Contacteur 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 50/60 Hz
[Ie] rated operational current	20 A (at <math>50\text{ }^\circ\text{C}</math>) at <math>\leq 440\text{ V AC AC-1}</math> for power circuit 16 A (at <math>70\text{ }^\circ\text{C}</math>) at 690 V AC AC-1 for power circuit
Control circuit type	AC at 50/60 Hz
[Uc] control circuit voltage	48 V AC 50/60 Hz
[Uimp] rated impulse withstand voltage	8 kV
Oversvoltage category	III
[Ith] conventional free air thermal current	20 A (at <math>50\text{ }^\circ\text{C}</math>) 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
[Icw] rated short-time withstand current	90 A <math>50\text{ }^\circ\text{C}</math> - 1 s for power circuit 85 A <math>50\text{ }^\circ\text{C}</math> - 5 s for power circuit 80 A <math>50\text{ }^\circ\text{C}</math> - 10 s for power circuit 60 A <math>50\text{ }^\circ\text{C}</math> - 30 s for power circuit 45 A <math>50\text{ }^\circ\text{C}</math> - 1 min for power circuit 40 A <math>50\text{ }^\circ\text{C}</math> - 3 min for power circuit 20 A <math>50\text{ }^\circ\text{C}</math> - >= 15 min for power circuit
Associated fuse rating	25 A gG at <math>\leq 440\text{ V}</math> for power circuit 25 A aM for power circuit

<b>Average impedance</b>	3 mOhm - lth 20 A 50 Hz for power circuit
<b>[Ui] rated insulation voltage</b>	Power circuit: 600 V conforming to UL 508 Power circuit: 690 V conforming to IEC 60947-4-1 Power circuit: 600 V conforming to CSA C22.2 No 14
<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>Heat dissipation</b>	1.3 W
<b>Control circuit voltage limits</b>	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)
<b>Connections - terminals</b>	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
<b>Maximum operating rate</b>	3600 cyc/h
<b>Signalling circuit frequency</b>	<= 400 Hz
<b>Mounting support</b>	Rail Plate
<b>Tightening torque</b>	0.8...1.3 N.m - on screw clamp terminals Philips No 2 0.8...1.3 N.m - on screw clamp terminals flat Ø 6 mm 0.8...1.3 N.m - on screw clamp terminals pozidriv No 2
<b>Operating time</b>	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
<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>Electrical durability</b>	0.18 Mcycles 20 A AC-1 at U <sub>e</sub> <= 440 V
<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>Height</b>	58 mm
<b>Width</b>	45 mm
<b>Depth</b>	57 mm
<b>Net weight</b>	0.18 kg
<b>Environment</b>	
<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>Product certifications</b>	CB Scheme CCC UL CSA EAC CE UKCA
<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 storage</b>	-50...80 °C

<b>Operating altitude</b>	2000 m without derating
<b>Flame retardance</b>	V1 conforming to UL 94 Requirement 2 conforming to NF F 16-101 Requirement 2 conforming to NF F 16-102

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	4.8 cm
<b>Package 1 Width</b>	6.2 cm
<b>Package 1 Length</b>	6.5 cm
<b>Package 1 Weight</b>	180.5 g
<b>Unit Type of Package 2</b>	S02
<b>Number of Units in Package 2</b>	50
<b>Package 2 Height</b>	15.0 cm
<b>Package 2 Width</b>	30.0 cm
<b>Package 2 Length</b>	40.0 cm
<b>Package 2 Weight</b>	9.285 kg

## Offer Sustainability

<b>Sustainable offer status</b>	Green Premium product
<b>REACH Regulation</b>	<a href="#">REACH Declaration</a>
<b>REACH free of SVHC</b>	Yes
<b>EU RoHS Directive</b>	Compliant <a href="#">EU RoHS Declaration</a>
<b>Toxic heavy metal free</b>	Yes
<b>Mercury free</b>	Yes
<b>China RoHS Regulation</b>	<a href="#">China RoHS declaration</a> Pro-active China RoHS declaration (out of China RoHS legal scope)
<b>RoHS exemption information</b>	<a href="#">Yes</a>
<b>Environmental Disclosure</b>	<a href="#">Product Environmental Profile</a>
<b>Circularity Profile</b>	<a href="#">End of Life Information</a>
<b>WEEE</b>	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
<b>California proposition 65</b>	WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>

## Contractual warranty

<b>Warranty</b>	18 months
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## Recommended replacement(s)