



## Main

Range	TeSys
Product or component type	Contactors
Product name	TeSys K
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 50/60 Hz
[Ie] rated operational current	20 A (at <math>\leq 50\text{ }^\circ\text{C}</math>) at <math>\leq 440\text{ V AC AC-1}</math> for power circuit 16 A (at <math>\leq 70\text{ }^\circ\text{C}</math>) at <math>\leq 440\text{ V AC AC-1}</math> for power circuit
Control circuit type	DC low consumption
[Uc] control circuit voltage	24 V DC
[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

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

	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
Associated fuse rating	25 A gG at <= 440 V 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 - lth 20 A 50 Hz for power circuit
[Ui] rated insulation voltage	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 Power circuit: 750 V conforming to VDE 0110 group C Power circuit: 690 V conforming to BS 5424 Power circuit: 690 V conforming to NF C 20-040
Inrush power in W	1.8 W (at 20 °C)
Hold-in power consumption in W	1.8 W at 20 °C
Heat dissipation	1.8 W
Control circuit voltage limits	Operational: 0.7...1.3 U <sub>c</sub> (at <50 °C) Drop-out: >= 0.10 U <sub>c</sub> (at <50 °C)
Connections - terminals	Power circuit: lugs-ring terminals (external diameter: 7 mm)
Maximum operating rate	3600 cyc/h
Coil technology	With integral suppression device
Mounting support	Plate Rail
Tightening torque	Power circuit: 1.3 N.m - on lugs-ring terminals - with screwdriver flat Ø 6 mm 3.2 mm Power circuit: 1.3 N.m - on lugs-ring terminals - with screwdriver Philips No 23.2 mm
Operating time	10...20 ms coil de-energisation and NO opening 30...40 ms coil energisation and NO closing 25...35 ms coil energisation and NC opening 15...25 ms coil de-energisation and NC closing
Safety reliability level	B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 2000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1
Mechanical durability	30 Mcycles
Electrical durability	0.18 Mcycles 20 A AC-1 at U <sub>e</sub> <= 440 V
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
Height	58 mm
Width	45 mm
Depth	57 mm
Net weight	0.235 kg

## Environment

Standards	BS 5424 IEC 60947 NF C 63-110 VDE 0660 IEC 60077-1 IEC 60077-2 EN 45545: R22 HL3 EN/IEC 60947-4-1 EN/IEC 60947-5-1 UL 60947-4-1 CSA C22.2 No 60947-4-1
Product certifications	EAC IEC CSA CCC

UL

IP degree of protection	IP20 conforming to VDE 0106
Protective treatment	TC conforming to IEC 60068 TC conforming to DIN 50016
Ambient air temperature for storage	-50...80 °C
Permissible ambient air temperature around the device	-40...70 °C at Uc
Operating altitude	2000 m without
Flame retardance	V0 conforming to UL 94

### Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
REACH free of SVHC	Yes
EU RoHS Directive	Compliant <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS declaration</a> Product out of China RoHS scope. Substance declaration for your information
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End of Life Information</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins