

# Product data sheet

Specifications



## Contactor, TeSys K, 3P, AC-3/ AC-3e, 440V 6A, aux. 1NO, 24V AC coil, screw clamp terminals

LC1K0610B7

### Main

Range	TeSys
Product or component type	Contactor
Product name	TeSys K
Device short name	LC1K
Device application	Control
Contactor application	Motor control

### Complementary

Utilisation category	AC-4 AC-3 AC-3e
Poles description	3P
Power pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit: 690 V AC 50/60 Hz Signalling circuit: ≤ 690 V AC 50/60 Hz
[Ie] rated operational current	6 A at ≤ 440 V AC AC-3 for power circuit 6 A at ≤ 440 V AC AC-3e for power circuit
Control circuit type	AC at 50/60 Hz
[Uc] control circuit voltage	24 V AC 50/60 Hz
Motor power kW	1.5 kW at 220...230 V AC 50/60 Hz AC-3 2.2 kW at 380...415 V AC 50/60 Hz AC-3 3 kW at 440 V AC 50/60 Hz AC-3 3 kW at 480 V AC 50/60 Hz AC-3 3 kW at 500...600 V AC 50/60 Hz AC-3 3 kW at 660...690 V AC 50/60 Hz AC-3 1.5 kW at 400 V AC 50/60 Hz AC-4 1.5 kW at 220...230 V AC 50/60 Hz AC-3e 2.2 kW at 380...415 V AC 50/60 Hz AC-3e 3 kW at 440 V AC 50/60 Hz AC-3e 3 kW at 480 V AC 50/60 Hz AC-3e 3 kW at 500...600 V AC 50/60 Hz AC-3e 3 kW at 660...690 V AC 50/60 Hz AC-3e
Auxiliary contact composition	1 NO
[Uimp] rated impulse withstand voltage	8 kV
Overvoltage category	III
[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

<b>Rated breaking capacity</b>	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
<b>[Icw] rated short-time withstand current</b>	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
<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>[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>Insulation resistance</b>	> 10 MOhm for signalling 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>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>Auxiliary contacts type</b>	type instantaneous 1 NO
<b>Signalling circuit frequency</b>	<= 400 Hz
<b>Minimum switching current</b>	5 mA for signalling circuit
<b>Minimum switching voltage</b>	17 V for signalling circuit
<b>Mounting support</b>	Rail Plate
<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 1.3 N.m - on lugs-ring terminals - with screwdriver pozidriv No 2
<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>Non overlap distance</b>	0.5 mm
<b>Mechanical durability</b>	10 Mcycles
<b>Electrical durability</b>	1.3 Mcycles 6 A AC-3 at U <sub>e</sub> <= 440 V 1.3 Mcycles 6 A AC-3e 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

Height	58 mm
Width	45 mm
Depth	57 mm
Net weight	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
Product certifications	CB Scheme CCC UL CSA EAC CE UKCA
IP degree of protection	IP2X conforming to VDE 0106
Protective treatment	TC conforming to IEC 60068 TC conforming to DIN 50016
Ambient air temperature for storage	-50...80 °C
Operating altitude	2000 m without derating
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
Package 1 Height	5.000 cm
Package 1 Width	6.000 cm
Package 1 Length	6.500 cm
Package 1 Weight	178.000 g
Unit Type of Package 2	S02
Number of Units in Package 2	50
Package 2 Height	15.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	9.143 kg
Unit Type of Package 3	P06
Number of Units in Package 3	800
Package 3 Height	75.000 cm
Package 3 Width	80.000 cm
Package 3 Length	60.000 cm
Package 3 Weight	154.288 kg

## Offer Sustainability

Sustainable offer status	Green Premium product
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<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>	Yes
<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>

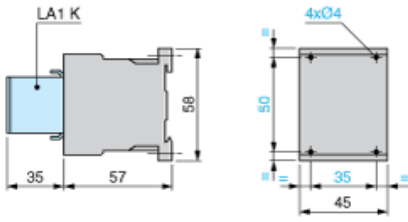
## Contractual warranty

<b>Warranty</b>	18 months
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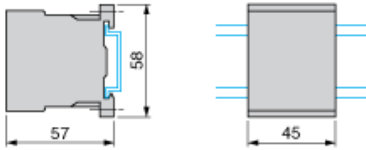
**Dimensions**

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**Contactors LC1 K, LP1 K, LP4 K: Mounting on Panel**



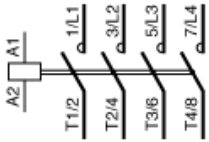
**Contactors LC1 K, LP1 K, LP4 K: Mounting on Rail AM1 DP200 or AM1 DE200 (35 mm)**



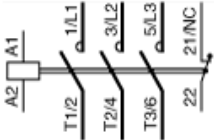
**Wiring**

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**3-Pole Contactors: 3P + N/O**



**3-Pole Contactors: 3P + N/C**



**Recommended replacement(s)**