



ⓘ Discontinued

LC1K06013M72 has not been replaced. Please contact your customer care center for more information.

## 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-3 AC-4
Poles description	3P
Power pole contact composition	3 NO
[Ue] rated operational voltage	690 V AC 50/60 Hz for power circuit $\leq$ 690 V AC 50/60 Hz for signalling circuit
[Ie] rated operational current	6 A at $\leq$ 440 V AC AC-3 for power circuit
Control circuit type	AC 50/60 Hz
[Uc] control circuit voltage	220...230 V AC 50/60 Hz
Motor power kW	3 kW at 440 V AC 50/60 Hz 3 kW at 500...600 V AC 50/60 Hz 3 kW at 660...690 V AC 50/60 Hz 1.5 kW at 220...230 V AC 50/60 Hz 2.2 kW at 380...415 V AC 50/60 Hz 3 kW at 480 V AC 50/60 Hz
Auxiliary contact composition	1 NC
[Uimp] rated impulse withstand voltage	8 kV
Overvoltage category	III
[Ith] conventional free air thermal current	20 A at $\leq$ 50 °C for power circuit 10 A at $\leq$ 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 110 A AC for signalling 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

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

70 A at 660...690 V conforming to IEC 60947

[I <sub>cw</sub> ] rated short-time withstand current	20 A ≤ 50 °C ≥ 15 min power circuit 90 A ≤ 50 °C 1 s power circuit 85 A ≤ 50 °C 5 s power circuit 80 A ≤ 50 °C 10 s power circuit 60 A ≤ 50 °C 30 s power circuit 45 A ≤ 50 °C 1 min power circuit 40 A ≤ 50 °C 3 min power circuit 80 A 1 s signalling circuit 90 A 500 ms signalling circuit 110 A 100 ms signalling circuit
Associated fuse rating	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
Average impedance	3 mOhm at 50 Hz - I <sub>th</sub> 20 A for power circuit
[U <sub>i</sub> ] rated insulation voltage	690 V for signalling circuit conforming to IEC 60947-4-1 690 V for signalling circuit conforming to IEC 60947-5-1 600 V for signalling circuit conforming to UL 508 600 V for power circuit conforming to CSA C22.2 No 14 600 V for signalling circuit conforming to CSA C22.2 No 14 690 V for power circuit conforming to IEC 60947-4-1 600 V for power circuit conforming to UL 508
Insulation resistance	> 10 MOhm for signalling circuit
Inrush power in VA	30 VA at 20 °C
Hold-in power consumption in VA	4.5 VA at 20 °C
Heat dissipation	1.3 W
Control circuit voltage limits	0.2...0.75 U <sub>c</sub> at ≤ 50 °C drop-out 0.8...1.15 U <sub>c</sub> at ≤ 50 °C operational
Connections - terminals	Spring terminals 1 cable(s) 0.75...1.5 mm <sup>2</sup> - cable stiffness: solid Spring terminals 1 cable(s) 0.75...1.5 mm <sup>2</sup> - cable stiffness: flexible - without cable end
Operating rate	3600 cyc/h
Coil technology	Built-in bidirectional peak limiting diode suppressor
Auxiliary contacts type	Type instantaneous (1 NC)
Signalling circuit frequency	≤ 400 Hz
Minimum switching current	5 mA for signalling circuit
Minimum switching voltage	17 V for signalling circuit
Mounting support	Plate Rail
Operating time	10...20 ms coil de-energisation and NO opening 10...20 ms coil energisation and NO closing
Safety reliability level	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
Non overlap distance	0.5 mm
Mechanical durability	10 Mcycles
Electrical durability	1.3 Mcycles 6 A AC-3 at U <sub>e</sub> ≤ 440 V
Mechanical robustness	Shocks contactor closed, on X axis 10 Gn for 11 ms IEC 60068-2-27 Shocks contactor closed, on Y axis 15 Gn for 11 ms IEC 60068-2-27 Shocks contactor closed, on Z axis 15 Gn for 11 ms IEC 60068-2-27 Shocks contactor opened, on X axis 6 Gn for 11 ms IEC 60068-2-27 Shocks contactor opened, on Y axis 10 Gn for 11 ms IEC 60068-2-27 Shocks contactor opened, on Z axis 10 Gn for 11 ms IEC 60068-2-27 Vibrations contactor closed 4 Gn, 5...300 Hz IEC 60068-2-6 Vibrations contactor opened 2 Gn, 5...300 Hz IEC 60068-2-6
Height	58 mm
Width	45 mm
Depth	57 mm
Product weight	0.18 kg

## Environment

Standards	BS 5424 IEC 60947
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NF C 63-110  
VDE 0660

Product certifications	CSA UL
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 operation	-25...50 °C
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

### Contractual warranty

Warranty period	18 months
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