

## LC1K1610B72

TeSys K contactor - 3P(3 NO) - AC-3 - <= 440 V 16 A - 24 V AC coil



### Main

Range	TeSys
Product name	TeSys K
Device short name	LC1K
Contacteur application	Motor control
Utilisation category	AC-3
Poles description	3P
Pole contact composition	3 NO
[Ue] rated operational voltage	690 V AC 50/60 Hz for power circuit <= 690 V AC 50/60 Hz for signalling circuit
[Ie] rated operational current	16 A at <= 440 V AC AC-3 for power circuit
Motor power kW	4 kW at 220...230 V AC 50/60 Hz 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 7.5 kW at 380...415 V AC 50/60 Hz 5.5 kW at 440 V AC 50/60 Hz
Control circuit type	AC 50/60 Hz
Control circuit voltage	24 V AC 50/60 Hz
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 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
Rated breaking capacity	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
[Icw] rated short-time withstand current	80 A 1 s signalling circuit 90 A 500 ms signalling circuit 110 A 100 ms signalling circuit 115 A <= 50 °C 1 s power circuit 105 A <= 50 °C 5 s power circuit 100 A <= 50 °C 10 s power circuit 75 A <= 50 °C 30 s power circuit 55 A <= 50 °C 1 min power circuit 50 A <= 50 °C 3 min power circuit 25 A <= 50 °C >= 15 s power 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 - Ith 20 A for power circuit
[Ui] rated insulation voltage	690 V for power circuit conforming to IEC 60947-4-1 600 V for power circuit conforming to UL 508 690 V for signalling circuit conforming to IEC 60947-4-1 690 V for signalling circuit conforming to IEC 60947-5-1

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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

Electrical durability	1.3 Mcycles 16 A AC-3 at $U_e \leq 440$ V
Mounting support	Plate Rail
Standards	BS 5424 IEC 60947 NF C 63-110 VDE 0660
Product certifications	CSA UL
Connections - terminals	Screw clamp terminals 1 cable(s) 1.5...4 mm <sup>2</sup> - cable stiffness: solid Screw clamp terminals 1 cable(s) 0.75...4 mm <sup>2</sup> - cable stiffness: flexible - without cable end Screw clamp terminals 1 cable(s) 0.34...2.5 mm <sup>2</sup> - cable stiffness: flexible - with cable end Screw clamp terminals 2 cable(s) 1.5...4 mm <sup>2</sup> - cable stiffness: solid Screw clamp terminals 2 cable(s) 0.75...4 mm <sup>2</sup> - cable stiffness: flexible - without cable end Screw clamp terminals 2 cable(s) 0.34...1.5 mm <sup>2</sup> - cable stiffness: flexible - with cable end
Tightening torque	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
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 = 2000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1
Mechanical durability	10 Mcycles
Operating rate	3600 cyc/h

## Complementary

Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.2...0.75 $U_c$ at $\leq 50$ °C drop-out 0.8...1.15 $U_c$ at $\leq 50$ °C operational
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
Auxiliary contacts type	Type instantaneous (1 NO)
Signalling circuit frequency	$\leq 400$ Hz
Minimum switching current	5 mA for signalling circuit
Minimum switching voltage	17 V for signalling circuit
Non overlap distance	0.5 mm
Insulation resistance	> 10 MOhm for signalling circuit

## Environment

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 in temperature
Flame retardance	V1 conforming to UL 94 Requirement 2 conforming to NF F 16-101 Requirement 2 conforming to NF F 16-102
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

Depth	57 mm
Product weight	0.18 kg

### Offer Sustainability

Sustainable offer status	Green Premium product
RoHS	Compliant - since 0825 - Schneider Electric declaration of conformity
REACH	Reference not containing SVHC above the threshold
Product environmental profile	Available
Product end of life instructions	Need no specific recycling operations