



## Main

Range	TeSys
Product or Component Type	Contacteur
Device short name	LC1K
Device Application	Control
Contacteur application	Motor control Resistive load

## Complementary

Utilisation category	AC-3 AC-3e AC-1 AC-4
Poles description	3P
Pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit <= 690 V AC <= 400 Hz Signalling circuit <= 690 V AC <= 400 Hz
[Ie] rated operational current	12 A (at <140 °F (60 °C)) at <= 440 V AC AC-3 for power circuit 12 A (at <140 °F (60 °C)) at <= 440 V AC AC-3e for power circuit 20 A (at <140 °F (60 °C)) at <= 690 V AC AC-1 for power circuit
Control circuit type	AC 50/60 Hz
[Uc] control circuit voltage	230...240 V AC 50/60 Hz
Motor power kW	3 KW 220...230 V AC 50/60 Hz AC-3 5.5 KW 380...415 V AC 50/60 Hz AC-3 5.5 KW 440 V AC 50/60 Hz AC-3 4 KW 690 V AC 50/60 Hz AC-3 3 KW 220...230 V AC 50/60 Hz AC-3e 5.5 KW 380...415 V AC 50/60 Hz AC-3e 5.5 KW 440 V AC 50/60 Hz AC-3e 4 KW 690 V AC 50/60 Hz AC-3e 3 KW 220...230 V AC 50/60 Hz AC-4 5.5 KW 380...415 V AC 50/60 Hz AC-4 5.5 KW 440 V AC 50/60 Hz AC-4 4 kW 690 V AC 50/60 Hz AC-4
Auxiliary contact composition	1 NC
[Uimp] rated impulse withstand voltage	8 kV
Overvoltage category	III
[Ith] conventional free air thermal current	20 A (at 140 °F (60 °C)) for power circuit 10 A (at 122 °F (50 °C)) for signalling circuit
Irms rated making capacity	144 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 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

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[I <sub>cw</sub> ] rated short-time withstand current	115 A 122 °F (50 °C) - 1 s for power circuit 105 A 122 °F (50 °C) - 5 s for power circuit 100 A 122 °F (50 °C) - 10 s for power circuit 75 A 122 °F (50 °C) - 30 s for power circuit 55 A 122 °F (50 °C) - 1 min for power circuit 50 A 122 °F (50 °C) - 3 min for power circuit 25 A 122 °F (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
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 - Ith 20 A 50 Hz for power circuit
[U <sub>i</sub> ] rated insulation voltage	Power circuit 600 V UL 508 Power circuit 690 V IEC 60947-4-1 Signalling circuit 690 V IEC 60947-4-1 Signalling circuit 690 V IEC 60947-5-1 Signalling circuit 600 V UL 508 Power circuit 600 V CSA C22.2 No 14 Signalling circuit 600 V CSA C22.2 No 14
Insulation resistance	> 10 MOhm for signalling circuit
Inrush power in VA	30 VA (at 68 °F (20 °C))
Hold-in power consumption in VA	4.5 VA (at 68 °F (20 °C))
Heat dissipation	1.3 W
Control circuit voltage limits	Operational: 0.8...1.15 U <sub>c</sub> (at <122 °F (50 °C)) Drop-out: >= 0.20 U <sub>c</sub> (at <122 °F (50 °C))
Connections - terminals	Screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1.5...4 mm <sup>2</sup> )solid Screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (0.75...4 mm <sup>2</sup> )flexible without cable end Screw clamp terminals 1 0.00...0.00 in <sup>2</sup> (0.34...2.5 mm <sup>2</sup> )flexible with cable end Screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1.5...4 mm <sup>2</sup> )solid Screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (0.75...4 mm <sup>2</sup> )flexible without cable end Screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (0.34...1.5 mm <sup>2</sup> )flexible with cable end
Maximum operating rate	3600 cyc/h
Auxiliary contacts 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
Tightening torque	7.08...11.51 Lbf.In (0.8...1.3 N.m) screw clamp terminals Philips No 2 7.08...11.51 Lbf.In (0.8...1.3 N.m) screw clamp terminals flat Ø 6 mm 7.08...11.51 lbf.in (0.8...1.3 N.m) screw clamp terminals pozidriv No 2
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 EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1
Non overlap distance	0.02 in (0.5 mm)
Mechanical durability	10 Mcycles
Electrical durability	1.3 Mcycles 12 A AC-3 <= 440 V 1.3 Mcycles 12 A AC-3e <= 440 V 0.3 Mcycles 20 A AC-1 <= 690 V 0.02 Mcycles 72 A AC-4 <= 440 V
Mechanical robustness	Shocks contactor closed, on X axis10 Gn for 11 ms IEC 60068-2-27 Shocks contactor closed, on Y axis15 Gn for 11 ms IEC 60068-2-27 Shocks contactor closed, on Z axis15 Gn for 11 ms IEC 60068-2-27 Shocks contactor opened, on X axis6 Gn for 11 ms IEC 60068-2-27 Shocks contactor opened, on Y axis10 Gn for 11 ms IEC 60068-2-27 Shocks contactor opened, on Z axis10 Gn for 11 ms IEC 60068-2-27 Vibrations contactor closed4 Gn, 5...300 Hz IEC 60068-2-6 Vibrations contactor opened2 Gn, 5...300 Hz IEC 60068-2-6
Height	2.28 in (58 mm)
Width	1.77 in (45 mm)
Depth	2.24 in (57 mm)
Net Weight	0.40 lb(US) (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[RETURN]CCC[RETURN]UL[RETURN]CSA[RETURN]EAC[RETURN]CE[RETURN]UK[RETURN]
IP degree of protection	IP2X VDE 0106
Protective treatment	TC IEC 60068 TC DIN 50016
Ambient Air Temperature for Storage	-58...176 °F (-50...80 °C)
Operating altitude	6561.68 ft (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	2.56 in (6.5 cm)
Package 1 Width	2.44 in (6.2 cm)
Package 1 Length	1.89 in (4.8 cm)
Package 1 Weight	6.38 oz (181.0 g)
Unit Type of Package 2	S02
Number of Units in Package 2	50
Package 2 Height	5.91 in (15.0 cm)
Package 2 Width	11.81 in (30.0 cm)
Package 2 Length	15.75 in (40.0 cm)
Package 2 Weight	20.66 lb(US) (9.371 kg)

## 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>
Toxic heavy metal free	Yes
Mercury free	Yes
China RoHS Regulation	<a href="#">China RoHS Declaration</a>
RoHS exemption information	<a href="#">Yes</a>
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.