Product datasheet
Characteristics

LC1K0601B7

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
Pole contact composition	3 NO
System Voltage	690 V AC 50/60 Hz power circuit <= 690 V AC 50/60 Hz signalling circuit
[Ie] rated operational current	6 A at <= 440 V AC AC-3 power circuit
Control circuit type	AC 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 1.5 kW at 400 V AC 50/60 Hz AC-4 3 kW at 660...690 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
Auxiliary contact composition	1 NC
[Uimp] rated impulse withstand voltage	8 kV
Overvoltage category	III
[Ith] conventional free air thermal current	20 A at <= 122 °F (50 °C) power circuit 10 A at <= 122 °F (50 °C) signalling circuit
Irms rated making capacity	110 A AC power circuit conforming to NF C 63-110 110 A AC power circuit conforming to IEC 60947 110 A AC 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 70 A at 660...690 V conforming to IEC 60947
[Icw] rated short-time withstand current	90 A <= 122 °F (50 °C) 1 s power circuit 85 A <= 122 °F (50 °C) 5 s power circuit 80 A <= 122 °F (50 °C) 10 s power circuit 60 A <= 122 °F (50 °C) 30 s power circuit 45 A <= 122 °F (50 °C) 1 min power circuit 40 A <= 122 °F (50 °C) 3 min power circuit 80 A 1 s signalling circuit 90 A 500 ms signalling circuit 110 A 100 ms signalling circuit 20 A <= 50 °C >= 15 min power circuit
Associated fuse rating	25 A gG at <= 440 V power circuit 25 A aM power circuit 10 A gG signalling circuit conforming to IEC 60947 10 A gG signalling circuit conforming to VDE 0660
Average impedance	3 mOhm at 50 Hz - Ith 20 A power circuit

[Ui] rated insulation voltage	690 V power circuit conforming to IEC 60947-4-1 600 V power circuit conforming to UL 508 690 V signalling circuit conforming to IEC 60947-4-1 690 V signalling circuit conforming to IEC 60947-5-1 600 V signalling circuit conforming to UL 508 600 V power circuit conforming to CSA C22.2 No 14 600 V signalling circuit conforming to CSA C22.2 No 14
Insulation resistance	> 10 MOhm 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	0.2...0.75 Uc at <= 122 °F (50 °C) drop-out 0.8...1.15 Uc at <= 122 °F (50 °C) operational
Connections - terminals	Screw clamp terminals 1 cable(s) 0...0.01 in² (1.5...4 mm²) - cable stiffness: solid Screw clamp terminals 1 cable(s) 0...0.01 in² (0.75...4 mm²) - cable stiffness: flexible - without cable end Screw clamp terminals 1 cable(s) 0...0 in² (0.34...2.5 mm²) - cable stiffness: flexible - with cable end Screw clamp terminals 2 cable(s) 0...0.01 in² (1.5...4 mm²) - cable stiffness: solid Screw clamp terminals 2 cable(s) 0...0.01 in² (0.75...4 mm²) - cable stiffness: flexible - without cable end Screw clamp terminals 2 cable(s) 0...0 in² (0.34...1.5 mm²) - cable stiffness: flexible - with cable end
Operating rate	3600 cyc/h
Auxiliary contacts type	Type instantaneous (1 NC)
Signalling circuit frequency	<= 400 Hz
Minimum switching current	5 mA signalling circuit
Minimum switching voltage	17 V signalling circuit
Mounting support	Plate Rail
Tightening torque	11.5 lbf.in (1.3 N.m) - on screw clamp terminals - with screwdriver Philips No 2 11.5 lbf.in (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 = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1
Non overlap distance	0.02 in (0.5 mm)
Mechanical durability	10 Mcycles
Electrical durability	1.3 Mcycles 6 A AC-3 at Ue <= 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	2.28 in (58 mm)
Width	1.77 in (45 mm)
Depth	2.24 in (57 mm)
Product weight	0.4 lb(US) (0.18 kg)

Environment

standards	BS 5424 IEC 60947 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	-13...122 °F (-25...50 °C)
ambient air temperature for storage	-58...176 °F (-50...80 °C)

operating altitude	6561.68 ft (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

Offer Sustainability

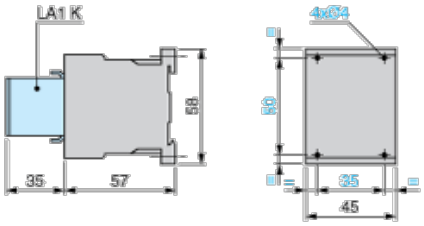
Green Premium product	Green Premium product
Compliant - since 0633 - Schneider Electric declaration of conformity	Compliant - since 0633 - Schneider Electric declaration of conformity
Reference not containing SVHC above the threshold	Reference not containing SVHC above the threshold
Available	Available
Available	Available

Contractual warranty

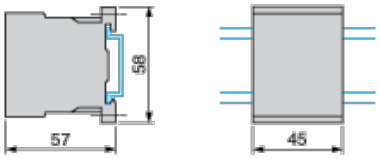
Warranty period	18 months

Dimensions

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

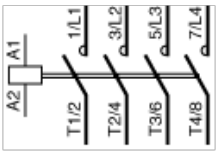


Contactors LC1 K, LP1 K, LP4 K: Mounting on Rail AM1 DP200 or AM1 DE200 (35 mm)

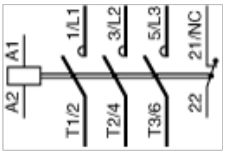


Wiring

3-Pole Contactors: 3P + N/O



3-Pole Contactors: 3P + N/C



Our Proposal - Type 1 : Circuit Breaker + Contactor for Motor Power from 0,06 to 3 kW and 415 VAC

Motor Power (kW)	Icu (kA)	Breaker	Contactor

0.06	> 100	 GV2ME02	 LC1K0601B7
0.09	> 100	 GV2ME03	 LC1K0601B7
0,12 to 0,18	> 100	 GV2ME04	 LC1K0601B7
0,25 to 0,37	> 100	 GV2ME05	 LC1K0601B7
0.55	> 100	 GV2ME06	 LC1K0601B7
0.75	> 100	 GV2ME07	 LC1K0601B7
1,1 to 1,5	> 100	 GV2ME08	 LC1K0601B7
2.2	> 100	 GV2ME10	 LC1K0601B7
3	> 100	 GV2ME14	 LC1K0601B7

Non contractual pictures. Type 1 coordination requires that in a short-circuit condition, the contactor or starter must not present any danger to personnel or installations and must not be able to resume operation without repair or the replacement of parts.