Product datasheet
Characteristics

LC1K0901F7
TeSys K contactor - 3P(3 NO) - AC-3 - <= 440 V 9 A - 110 V AC coil

Main

Range of product	TeSys K
Range	TeSys
Product name	TeSys K
Device short name	LC1K
Contactor application	Motor control Resistive load

Complementary

Utilisation category	AC-3 AC-4 AC-1
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	20 A (<= 50 °C) at <= 440 V AC AC-1 for power circuit 16 A (<= 70 °C) at 690 V AC AC-1 for power circuit 9 A at <= 440 V AC AC-3 for power circuit
Control circuit type	AC 50/60 Hz
Control circuit voltage	110 V AC 50/60 Hz
Motor power kW	4 kW at 480 V AC 50/60 Hz 4 kW at 660...690 V AC 50/60 Hz 2.2 kW at 220...230 V AC 50/60 Hz 4 kW at 500...600 V AC 50/60 Hz 4 kW at 440 V AC 50/60 Hz 4 kW at 380...415 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	10 A at <= 50 °C for signalling circuit 20 A at <= 50 °C for power 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	70 A at 660...690 V conforming to IEC 60947 110 A at 380...400 V conforming to IEC 60947 110 A at 220...230 V conforming to IEC 60947 80 A at 500 V conforming to IEC 60947 110 A at 440 V conforming to IEC 60947 110 A at 415 V conforming to IEC 60947
[Icw] rated short-time withstand current	90 A <= 50 °C 1 s power circuit 80 A 1 s signalling circuit 45 A <= 50 °C 1 min power circuit 40 A <= 50 °C 3 min power circuit 90 A 500 ms signalling circuit 110 A 100 ms signalling circuit 60 A <= 50 °C 30 s power circuit 20 A <= 50 °C >= 15 s power circuit 85 A <= 50 °C 5 s power circuit 80 A <= 50 °C 10 s power circuit
Associated fuse rating	25 A aM for power circuit 10 A gG for signalling circuit conforming to IEC 60947 25 A gG at <= 440 V for power circuit 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 508 600 V for signalling circuit conforming to CSA C22.2 No 14 600 V for power circuit conforming to CSA C22.2 No 14 690 V for signalling circuit conforming to IEC 60947-5-1 600 V for signalling circuit conforming to UL 508 690 V for signalling circuit conforming to IEC 60947-4-1
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	0.8...1.15 Uc at <= 50 °C operational 0.2...0.75 Uc at <= 50 °C drop-out
Connections - terminals	Screw clamp terminals 1 cable(s) 0.34...2.5 mm² - cable stiffness: flexible - with cable end Screw clamp terminals 1 cable(s) 1.5...4 mm² - cable stiffness: solid Screw clamp terminals 2 cable(s) 0.75...4 mm² - cable stiffness: flexible - without cable end Screw clamp terminals 2 cable(s) 1.5...4 mm² - cable stiffness: solid Screw clamp terminals 1 cable(s) 0.75...4 mm² - cable stiffness: flexible - without cable end Screw clamp terminals 2 cable(s) 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 for signalling circuit
Minimum switching voltage	17 V for signalling circuit
Mounting support	Plate Rail
Tightening torque	1.3 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm 1.3 N.m - on screw clamp terminals - with screwdriver Philips No 2
Operating time	10...20 ms coil energisation and NO closing 10...20 ms coil de-energisation and NO opening
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	0.18 Mcycles 20 A AC-1 at Ue <= 440 V 1.3 Mcycles 9 A AC-3 at Ue <= 440 V
Mechanical robustness	Shocks contactor opened, on Z axis 10 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 closed, on X axis 10 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 closed, on Y axis 15 Gn for 11 ms IEC 60068-2-27

	Shocks contactor opened, on Y axis 10 Gn for 11 ms IEC 60068-2-27 Vibrations contactor opened 2 Gn, 5...300 Hz IEC 60068-2-6 Vibrations contactor closed 4 Gn, 5...300 Hz IEC 60068-2-6
Height	58 mm
Width	45 mm
Depth	57 mm
Product weight	0.18 kg
Compatibility code	LC1K

Environment

Standards	VDE 0660 IEC 60947 BS 5424 NF C 63-110
Product certifications	UL CSA
IP degree of protection	IP2x conforming to VDE 0106
Protective treatment	TC conforming to DIN 50016 TC conforming to IEC 60068
Ambient air temperature for operation	-25...50 °C
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 16-102 Requirement 2 conforming to NF F 16-101

Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0640 - Schneider Electric declaration of conformity Schneider Electric declaration of conformity
REACh	Reference not containing SVHC above the threshold Reference not containing SVHC above the threshold
Product environmental profile	Available End of life manual
Product end of life instructions	Available

Contractual warranty

Warranty period	18 months