Product datasheet





Contactor, TeSys K, 3P, AC-3/ AC-3e,440V 9A, 1NC aux, 110V AC coil

LC1K0901F7

Main		
Range	TeSys	
Product Or Component Type	Contactor	
Device Short Name	LC1K	
Device Application	Control	
Contactor Application	Resistive load Motor control	
Complementary		
Utilisation Category	AC-3 AC-3e AC-1 AC-4	
Poles Description	3P	
Power Pole Contact Composition	3 NO	
[Ue] Rated Operational Voltage	Power circuit: <= 690 V AC <= 400 Hz Signalling circuit: <= 690 V AC <= 400 Hz	
[le] Rated Operational Current	9 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 9 A (at <60 °C) at <= 440 V AC AC-3e for power circuit 20 A (at <60 °C) at <= 690 V AC AC-1 for power circuit	
Control Circuit Type	AC at 50/60 Hz	

	4 kW at 380415 V AC 50/60 Hz AC-3
	4 kW at 440/690 V AC 50/60 Hz AC-3
	2.2 kW at 220230 V AC 50/60 Hz AC-3e
	4 kW at 380415 V AC 50/60 Hz AC-3e
	4 kW at 440/690 V AC 50/60 Hz AC-3e
	2.2 kW at 220230 V AC 50/60 Hz AC-4
	4 kW at 380415 V AC 50/60 Hz AC-4
	4 kW at 440/690 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	20 A (at 60 °C) for power circuit
Thermal Current	10 A (at 50 °C) for signalling circuit

2.2 kW at 220...230 V AC 50/60 Hz AC-3

Irms Rated Making Capacity 110 A AC for power circuit conforming to IEC 60947

110 V AC 50/60 Hz

110 A AC for signalling circuit conforming to IEC 60947

[Uc] Control Circuit Voltage

Motor Power Kw

Rated Breaking Capacity	110 A at 220230 V conforming to IEC 60947
	110 A at 380400 V conforming to IEC 60947
	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
	70 A at 660690 V conforming to IEC 60947
[Icw] Rated Short-Time Withstand	90 A 50 °C - 1 s for power circuit
Current	85 A 50 °C - 5 s for power circuit
	80 A 50 °C - 10 s for power circuit
	60 A 50 °C - 30 s for power circuit
	45 A 50 °C - 1 min for power circuit 40 A 50 °C - 3 min for power circuit
	20 A 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 IEC 00347
Average Impedance	3 mOhm - Ith 20 A 50 Hz for power circuit
[Ui] Rated Insulation Voltage	
ion nation modification voltage	Power circuit: 600 V conforming to UL 508 Power circuit: 690 V conforming to IEC 60947-4-1
	Signalling circuit: 690 V conforming to IEC 60947-4-1
	Signalling circuit: 690 V conforming to IEC 60947-5-1
	Signalling circuit: 600 V conforming to UL 508
	Power circuit: 600 V conforming to CSA C22.2 No 14 Signalling circuit: 600 V conforming to CSA C22.2 No 14
Inculation Posistance	
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	Operational: 0.81.15 Uc (at <50 °C) Drop-out: >= 0.20 Uc (at <50 °C)
Connections - Terminals	Screw clamp terminals 1 cable(s) 1.54 mm²solid
	Screw clamp terminals 1 cable(s) 0.754 mm²flexible without cable end
	Screw clamp terminals 1 cable(s) 0.342.5 mm²flexible with cable end
	Screw clamp terminals 2 cable(s) 1.54 mm²solid Screw clamp terminals 2 cable(s) 0.754 mm²flexible without cable end
	Screw clamp terminals 2 cable(s) 0.7415 mm²flexible with cable end
Maximum 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	0.81.3 N.m - on screw clamp terminals Philips No 2
	0.81.3 N.m - on screw clamp terminals flat Ø 6 mm 0.81.3 N.m - on screw clamp terminals pozidriv No 2
Operating Time	1020 ms coil de-energisation and NO opening
· •	1020 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

1.3 Mcycles 9 A AC-3 at Ue <= 440 V
1.3 Mcycles 9 A AC-3e at Ue <= 440 V
0.16 Mcycles 20 A AC-1 at Ue <= 690 V
0.02 Mcycles 54 A AC-4 at Ue <= 440 V
Shocks contactor closed, on X axis: 10 Gn for 11 ms conforming to IEC 60068-2-27
Shocks contactor closed, on Y axis: 15 Gn for 11 ms conforming to IEC 60068-2-27
Shocks contactor closed, on Z axis: 15 Gn for 11 ms conforming to IEC 60068-2-27
Shocks contactor opened, on X axis: 6 Gn for 11 ms conforming to IEC 60068-2-27
Shocks contactor opened, on Y axis: 10 Gn for 11 ms conforming to IEC 60068-2-27
Shocks contactor opened, on Z axis: 10 Gn for 11 ms conforming to IEC 60068-2-27
Vibrations contactor closed: 4 Gn, 5300 Hz conforming to IEC 60068-2-6
Vibrations contactor opened: 2 Gn, 5300 Hz conforming to IEC 60068-2-6
58 mm
45 mm
57 mm

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 CCC UL CSA EAC CE
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	-5080 °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

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	6.6 cm
Package 1 Width	4.8 cm
Package 1 Length	6.2 cm
Package 1 Weight	181.0 g
Unit Type Of Package 2	S02
Number Of Units In Package 2	50
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	9.392 kg

Contractual warranty

Warranty

18 months



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Transparency RoHS/REACh

Well-being performance

⊘	Reach Free Of Svhc	
Ø	Toxic Heavy Metal Free	
⊘	Mercury Free	
⊘	Rohs Exemption Information	Yes

Certifications & Standards

Reach Regulation	REACh Declaration
Eu Rohs Directive	Compliant EU RoHS Declaration
China Rohs Regulation	China RoHS declaration Pro-active China RoHS declaration (out of China RoHS legal scope)
Environmental Disclosure	Product Environmental Profile
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
Circularity Profile	End of Life Information