Product data sheet Characteristics

LC1K0901F72

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





Main

Range	TeSys	
Product or component type	Contactor	
Product name	TeSys K	
Device short name	LC1K	
Device application	Control	
Contactor application	Resistive load Motor control	

Utilisation category	AC-3	
	AC-4	
	AC-1	
	AC-3e	
Poles description	3P	
Pole contact composition	3 NO	
[Ue] rated operational voltage	Power circuit: 690 V AC 50/60 Hz	
	Signalling circuit: <= 690 V AC 50/60 Hz	
[le] rated operational current	20 A (at <50 °C) at <= 440 V AC AC-1 for power circuit	
	9 A at <= 440 V AC AC-3 for power circuit	
	16 A (at <70 °C) at 690 V AC AC-1 for power circuit	
	9 A at <= 440 V AC AC-3e for power circuit	
Control circuit type	AC at 50/60 Hz	
[Uc] control circuit voltage	110 V AC 50/60 Hz	
Motor power kW	2.2 KW at 220230 V AC 50/60 Hz AC-3	
	4 KW at 380415 V AC 50/60 Hz AC-3	
	4 KW at 440 V AC 50/60 Hz AC-3	
	4 KW at 480 V AC 50/60 Hz AC-3	
	4 KW at 500600 V AC 50/60 Hz AC-3	
	4 KW at 660690 V AC 50/60 Hz AC-3	
	2.2 KW at 400 V AC 50/60 Hz AC-4	
	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 V AC 50/60 Hz AC-3e	
	4 KW at 480 V AC 50/60 Hz AC-3e	
	4 KW at 500600 V AC 50/60 Hz AC-3e	
	4 KW at 660690 V AC 50/60 Hz AC-3e	
Auxiliary contact composition	1 NC	
[Uimp] rated impulse withstand voltage	8 KV	
Overvoltage category		

[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 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	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 220230 V conforming to IEC 60947
	110 A at 220250 V conforming to IEC 60947
	70 A at 660690 V conforming to IEC 60947
[lcw] rated short-time withstand current	90 A 50 °C - 1 s for power circuit
	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 00947
Average impedance	3 MOhm - Ith 20 A 50 Hz for power circuit
Ui] rated insulation 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
nsulation resistance	> 10 MOhm for signalling circuit
nrush 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: 0.20.75 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 1 cable(s) 0.542.5 min nexible 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) 0.341.5 mm²flexible with cable end
Maximum operating rate	3600 Cyc/H
Coil technology	Built-in bidirectional peak limiting diode suppressor
Auxiliary contacts type Signalling circuit frequency	Type instantaneous 1 NC <= 400 Hz
Minimum switching current	5 MA for signalling circuit
Minimum switching current Minimum switching voltage	17 V for signalling circuit
Mounting support	Plate
	Rail
Fightening 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
Departing time	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
Electrical durability	0.18 Mcycles 20 A AC-1 at Ue <= 440 V
· · · · · · · · · · · · · · · · ·	1.3 Mcycles 9 A AC-3 at Ue <= 440 V
	1.3 Mcycles 9 A AC-3e at Ue <= 440 V



Mechanical robustness	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
Depth	57 Mm
Net weight	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	
	CCC	
	UL	
	CSA	
	EAC	
	CE	
	UKCA	
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

· coming orms		
Unit Type of Package 1	PCE	
Number of Units in Package 1	1	
Package 1 Height	4.1 Cm	
Package 1 Width	6.1 Cm	
Package 1 Length	6.5 Cm	
Package 1 Weight	181.0 G	

Offer Sustainability

Sustainable offer status	Green Premium product	
REACh Regulation	☑ REACh Declaration	
REACh free of SVHC	Yes	
EU RoHS Directive	Compliant EEU RoHS Declaration	
Toxic heavy metal free	Yes	
Mercury free	Yes	
China RoHS Regulation	☑ China RoHS Declaration	
RoHS exemption information	₫Yes	
Environmental Disclosure	Product Environmental Profile	
Circularity Profile	☑ End Of Life Information	



WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
California proposition 65	WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov
Contractual warranty	
Contractual warranty Warranty	18 months