Product data sheet

Specifications

TeSys K contactor , 3P , AC-3 <= 440 V 16 A , 1 NO aux. , 36 V AC coil

LC1K1610FC72

Discontinued

Main

Range Of Product	TeSys K
Range	TeSys
Product Name	TeSys K
Device Application	Control
Product Or Component Type	Contactor
Device Short Name	LC1K
Utilisation Category	AC-3 AC-1
Coil Technology	Built-in bidirectional peak limiting diode suppressor
Poles Description	3P
Pole Contact Composition	3 NO
[Ie] Rated Operational Current	16 A at <= 440 V AC-3 for power circuit 20 A at <= 690 V AC-1 for power circuit
[Uc] Control Circuit Voltage	type instantaneous 1 NO
Signalling Circuit Frequency	<= 400 Hz
Non Overlap Distance	0.5 mm

Complementary

Contactor Application	Motor control
Auxiliary Contact Composition	1 NO
Control Circuit Voltage Limits	Operational: 0.8...1.15 Uc (at <50 °C) Drop-out: 0.2...0.75 Uc (at <50 °C)
Control Circuit Type	AC at 50/60 Hz
[Uc] Control Circuit Voltage	36 V AC 50/60 Hz
Connections - Terminals	Screw clamp terminals 1 cable(s) 1.5…4 mm²solid Screw clamp terminals 1 cable(s) 0.75…4 mm²flexible without cable end Screw clamp terminals 1 cable(s) 0.34…2.5 mm²flexible with cable end Screw clamp terminals 2 cable(s) 1.5…4 mm²solid Screw clamp terminals 2 cable(s) 0.75…4 mm²flexible without cable end Screw clamp terminals 2 cable(s) 0.34…1.5 mm²flexible with cable end
Electrical Durability	1.3 Mcycles 16 A AC-3 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, 5...300 Hz conforming to IEC 60068-2-6 Vibrations contactor opened: 2 Gn, 5...300 Hz conforming to IEC 60068-2-6
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
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	-25…50 °C
[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
[Uimp] Rated Impulse Withstand Voltage	8 kV
Overvoltage Category	III
Mounting Support	Rail Plate
Product Certifications	CB Scheme CCC UL CSA EAC CE UKCA
Ambient Air Temperature For Storage	-50…80 °C
Operating Altitude	2000 m without derating
Tightening Torque	1.3 N.m - on screw clamp terminals - with screwdriver Philips No 2 1.3 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm
[Ue] Rated Operational Voltage	Power circuit: 690 V AC 50/60 Hz Signalling circuit: 690 V AC 50/60 Hz
[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 signalling circuit conforming to IEC 60947 160 A AC for power circuit conforming to NF C 63-110 160 A AC for power 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
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
Inrush Power In Va	30 VA (at 20 °C)
Hold-In Power Consumption In Va	4.5 VA (at 20 °C)
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
Mechanical Durability	10 Mcycles
Maximum Operating Rate	3600 cyc/h
Minimum Switching Current	5 mA for signalling circuit
Minimum Switching Voltage	17 V for signalling circuit
Insulation Resistance	> 10 MOhm for signalling circuit
Height	58 mm
Width	45 mm
Depth	57 mm
Net Weight	0.18 kg
Compatibility Code	LC1K

Environment

Motor Power Kw	4 kW at 480 V AC 50/60 Hz 4 kW at 500...600 V AC 50/60 Hz 4 kW at 660...690 V AC 50/60 Hz 5.5 kW at 440 V AC 50/60 Hz 4 kW at 220...230 V AC 50/60 Hz 7.5 kW at 380...415 V AC 50/60 Hz
[Icw] Rated Short-Time Withstand Current	115 A 50 °C - 1 s for power circuit 105 A 50 °C - 5 s for power circuit 100 A 50 °C - 10 s for power circuit 75 A 50 °C - 30 s for power circuit 55 A 50 °C - 1 min for power circuit 50 A 50 °C - 3 min for power circuit 25 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
Heat Dissipation	1.3 W
Flame Retardance	V1 conforming to UL 94

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1

Contractual warranty

Warranty	18 months