

# Product data sheet

Specifications



## TeSys K contactor , 3P , AC-3 <= 440 V 12 A , 1 NO aux. , 36 V AC coil

LC1K12105C72

⚠ Discontinued

### Main

Range Of Product	TeSys K
Range	TeSys
Product Name	TeSys K
Device Application	Control
Product Or Component Type	Contactors
Device Short Name	LC1K
Utilisation Category	AC-4 AC-1 AC-3
Coil Technology	Built-in bidirectional peak limiting diode suppressor
Poles Description	3P
Pole Contact Composition	3 NO
[Ie] Rated Operational Current	20 A (at <50 °C) at <= 440 V AC AC-1 for power circuit 12 A at <= 440 V AC AC-3 for power circuit 16 A (at <70 °C) at 690 V AC 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

Contactors Application	Motor control Resistive load
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	Solder pins - busbar cross section: 1.5 x 0.9 mm
Electrical Durability	0.3 Mcycles 20 A AC-1 at Ue <= 440 V 1.3 Mcycles 12 A AC-3 at Ue <= 440 V

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

<b>Mechanical Robustness</b>	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
<b>Standards</b>	EN/IEC 60947-4-1 GB/T 14048.4 UL 60947-4-1 CSA C22.2 No 60947-4-1 JIS C8201-4-1
<b>Ip Degree Of Protection</b>	IP2X conforming to VDE 0106
<b>Protective Treatment</b>	TC conforming to IEC 60068 TC conforming to DIN 50016
<b>[Ui] Rated Insulation Voltage</b>	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
<b>[Uimp] Rated Impulse Withstand Voltage</b>	8 kV
<b>Overvoltage Category</b>	III
<b>Mounting Support</b>	Printed circuit boards
<b>Product Certifications</b>	CB Scheme CCC UL CSA EAC CE UKCA
<b>Ambient Air Temperature For Storage</b>	-50...80 °C
<b>Operating Altitude</b>	2000 m without derating
<b>[Ue] Rated Operational Voltage</b>	Power circuit: 690 V AC 50/60 Hz Signalling circuit: ≤ 690 V AC 50/60 Hz
<b>[Ith] Conventional Free Air Thermal Current</b>	20 A (at 50 °C) for power circuit 10 A (at 50 °C) for signalling circuit
<b>Irms Rated Making Capacity</b>	110 A AC for signalling circuit conforming to IEC 60947 144 A AC for power circuit conforming to NF C 63-110 144 A AC for power circuit conforming to IEC 60947
<b>Rated Breaking Capacity</b>	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
<b>Associated Fuse Rating</b>	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
<b>Average Impedance</b>	3 mOhm - Ith 20 A 50 Hz for power circuit
<b>Inrush Power In Va</b>	30 VA (at 20 °C)
<b>Hold-In Power Consumption In Va</b>	4.5 VA (at 20 °C)
<b>Operating Time</b>	10...20 ms coil de-energisation and NO opening 10...20 ms coil energisation and NO closing
<b>Safety Reliability Level</b>	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
<b>Mechanical Durability</b>	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 3 kW at 220...230 V AC 50/60 Hz 5.5 kW at 380...415 V AC 50/60 Hz 5.5 kW at 440 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 80 A - 1 s for signalling circuit 90 A - 500 ms for signalling circuit 110 A - 100 ms for signalling circuit 25 A 50 °C - >= 15 min for power circuit
Heat Dissipation	1.3 W
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

## Contractual warranty

Warranty	18 months
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