Product data sheet Characteristics

LC2K1201M7

TeSys K reversing contactor - 3P(3 NO) -AC-3-<= 440 V 12 A - 220...230 VAC coil



Main	
Range of product	TeSys K
Product or component type	Reversing contactor
Device short name	LC2K
Contactor application	Motor control Resistive load
Utilisation category	AC-1 AC-3 AC-4
Device presentation	Preassembled with reversing power busbar
Poles description	3P
Power pole contact composition	3 NO
[Ue] rated operational voltage	<= 690 V AC 50/60 Hz for signalling circuit 690 V AC 50/60 Hz for power circuit
[le] rated operational current	16 A (<= 70 °C) at 690 V AC AC-1 for power circuit 20 A (<= 50 °C) at <= 440 V AC AC-1 for power cir- cuit 12 A at <= 440 V AC AC-3 for power circuit
Motor power kW	5.5 kW at 440 V AC 50/60 Hz 5.5 kW at 380415 V AC 50/60 Hz 3 kW at 220230 V AC 50/60 Hz 4 kW at 660690 V AC 50/60 Hz 4 kW at 500600 V AC 50/60 Hz 4 kW at 480 V AC 50/60 Hz
Control circuit type	AC 50/60 Hz
Control circuit voltage	220230 V AC 50/60 Hz
Auxiliary contact composition	1 NC
[Uimp] rated impulse withstand voltage	8 kV

10 A at <= 50 °C for signalling circuit 20 A at <= 50 °C for power circuit

IEC 60947

60947

NF C 63-110

144 A at 690 V AC for power circuit conforming to

144 A at 690 V AC for power circuit conforming to

110 A AC for signalling circuit conforming to IEC

70 A at 660...690 V conforming to IEC 60947 80 A at 500 V conforming to IEC 60947 110 A at 440 V conforming to IEC 60947

10 A gG for signalling circuit conforming to VDE

10 A gG for signalling circuit conforming to IEC

25 A gG at <= 440 V for power circuit

25 A <= 50 °C >= 15 s power circuit 50 A <= 50 °C 3 min power circuit

 $55 \text{ A} \le 50 ^{\circ}\text{C} 1 \text{ min power circuit}$ $75 \text{ A} \le 50 ^{\circ}\text{C} 30 \text{ s power circuit}$ $100 \text{ A} \le 50 ^{\circ}\text{C} 10 \text{ s power circuit}$ $105 \text{ A} \le 50 ^{\circ}\text{C} 5 \text{ s power circuit}$ $115 \text{ A} \le 50 ^{\circ}\text{C} 1 \text{ s power circuit}$ 110 A 100 ms signalling circuit 110 A 100 ms signalling circuit 110 A 110 ms signalling circuit 110 A 110 ms signalling circuit

25 A aM for power circuit

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein.

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.

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Overvoltage category
[Ith] conventional free

Rated breaking capac-

[lcw] rated short-time

Associated fuse rating

withstand current

air thermal current

Irms rated making ca-

Average impedance	3 mOhm at 50 Hz - Ith 20 A for power circuit
[Ui] rated insulation voltage	600 V for signalling circuit conforming to UL 508 690 V for signalling circuit conforming to IEC 60947-5-1 690 V for signalling circuit conforming to IEC 60947-4-1 690 V for power circuit conforming to IEC 60947-4-1 600 V for signalling circuit conforming to CSA 22-2 No 14 600 V for power circuit conforming to CSA 22-2 No 14 600 V for power circuit conforming to UL 508
Electrical durability	1.3 Mcycles 12 A AC-3 at Ue <= 440 V 0.3 Mcycles 20 A AC-1 at Ue <= 440 V
Interlocking type	Mechanical
Mounting support	Plate Rail
Standards	BS 5424 IEC 60947 NF C 63-110 VDE 0660
Product certifications	CSA UL
Connections - terminals	Screw clamp terminals 2 cable(s) 0.341.5 mm² - cable stiffness: flexible - with cable end Screw clamp terminals 2 cable(s) 0.754 mm² - cable stiffness: flexible - without cable end Screw clamp terminals 2 cable(s) 1.54 mm² - cable stiffness: solid Screw clamp terminals 1 cable(s) 0.342.5 mm² - cable stiffness: flexible - with cable end Screw clamp terminals 1 cable(s) 0.754 mm² - cable stiffness: flexible - without cable end Screw clamp terminals 1 cable(s) 1.54 mm² - cable stiffness: solid
Tightening torque	1.3 N.m - on screw clamp terminals - with screwdriver flat \varnothing 6 mm 1.3 N.m - on screw clamp terminals - with screwdriver Philips No 2
Operating time	1020 ms coil de-energisation and NO opening 1020 ms coil energisation and NO closing
Safety reliability level	B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1
Mechanical durability	5 Mcycles
Operating rate	3600 cyc/h

Complementary

Control circuit voltage limits	0.20.75 Uc at <= 50 °C drop-out 0.81.15 Uc at <= 50 °C operational	
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	
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	
Non overlap distance	0.5 mm	
Insulation resistance	> 10 MOhm for signalling circuit	



Environment

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	-2550 °C
Ambient air temperature for storage	-5080 °C
Operating altitude	2000 m without derating derating in temperature
Flame retardance	Requirement 2 conforming to NF F 16-102 Requirement 2 conforming to NF F 16-101 V1 conforming to UL 94
Mechanical robustness	Vibrations contactor opened 2 Gn, 5300 Hz IEC 60068-2-6 Vibrations contactor closed 4 Gn, 5300 Hz IEC 60068-2-6 Shocks contactor opened, on Z axis 10 Gn for 11 ms IEC 60068-2-27 Shocks contactor opened, on Y 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 Z axis 15 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 closed, on X axis 10 Gn for 11 ms IEC 60068-2-27
Height	58 mm
Width	90 mm
Depth	57 mm
Product weight	0.39 kg

RoHS compliance

RoHS EUR status	Compliant
RoHS EUR conformity date	0706

