Product datasheet

Specification





TeSys K reversing contactor - 3P - AC-3 <= 440 V 12 A - 1 NC - 24 V AC coil

LC2K1201B7

Main

Mani		
Range	TeSys	
Product name	TeSys K	
Product or component type	Reversing contactor	
Device short name	LC2K	
Device application	Control	
contactor application	Resistive load Motor control	
Utilisation category	AC-3 AC-3e AC-4 AC-1	
device presentation	Preassembled with reversing power busbar	
poles description	3P	
power 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	12 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 12 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	
Motor power kW	3 kW at 220230 V AC 50/60 Hz 5.5 kW at 380415 V AC 50/60 Hz 5.5 kW at 440 V AC 50/60 Hz 4 kW at 690 V AC 50/60 Hz	
Control circuit type	AC at 50/60 Hz	
[Uc] control circuit voltage	24 V AC 50/60 Hz	
Auxiliary contact composition	1 NC	
[Uimp] rated impulse withstand voltage	8 kV	
Overvoltage category	III	
[Ith] conventional free air thermal current	20 A (at 60 °C) for power circuit 10 A (at 50 °C) for signalling circuit	
Irms rated making capacity	144 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 440 V conforming to IEC 60947 80 A at 500 V conforming to IEC 60947 70 A at 660690 V conforming to IEC 60947	

[lcw] 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 100 A 50 °C - 30 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
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
[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
Electrical durability	1.3 Mcycles 12 A AC-3 at Ue <= 440 V 1.3 Mcycles 12 A AC-3e at Ue <= 440 V 0.3 Mcycles 20 A AC-1 at Ue <= 690 V 0.02 Mcycles 72 A AC-4 at Ue <= 440 V
Interlocking type	Mechanical
Mounting support	Plate Rail
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
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) 0.341.5 mm²flexible with cable end
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
Operating time	1020 ms coil energisation and NO closing 1020 ms coil de-energisation and NO opening
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	5 Mcycles
Maximum operating rate	3600 cyc/h
Complementary	
Control circuit voltage limits	Operational: 0.81.15 Uc (at <50 °C) Drop-out: 0.20.75 Uc (at <50 °C)
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	IP20 conforming to VDE 0106	
Protective treatment		
Protective treatment	TC conforming to IEC 60068	
	TC conforming to DIN 50016	
Ambient air temperature for operation	-2550 °C	
Ambient air temperature for	F0 00 %0	
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	
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	
Height	58 mm	
Width	90 mm	
Depth	57 mm	
Net weight	0.39 kg	

Packing Units

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Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	6.0 cm
Package 1 Width	6.5 cm
Package 1 Length	9.2 cm
Package 1 Weight	367.0 g
Unit Type of Package 2	S02
Number of Units in Package 2	25
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	9.49 kg

Contractual warranty

Warranty

18 months



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Transparency RoHS/REACh

Well-being performance

Ø	Reach Free Of Svhc	
⊘	Toxic Heavy Metal Free	
Ø	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