Product data sheet
Characteristics

LC1K0910B7
Contactor, TeSys K, 3P, AC-3/AC-3e,440V 9A, aux. 1NO, 24V AC coil, screw clamps



Main

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

Complementary

Utilisation category	AC-3 AC-3e AC-1 AC-4
Poles description	3P
Pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit: <= 690 V AC <= 400 Hz Signalling circuit: <= 690 V AC <= 400 Hz
[Ie] rated operational current	9 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 9 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
Control circuit type	AC at 50/60 Hz
[Uc] control circuit voltage	24 V AC 50/60 Hz
Motor power kW	2.2 KW at 220...230 V AC 50/60 Hz AC-3 4 KW at 380...415 V AC 50/60 Hz AC-3 4 KW at 440/690 V AC 50/60 Hz AC-3 2.2 KW at 220...230 V AC 50/60 Hz AC-3e 4 KW at 380...415 V AC 50/60 Hz AC-3e 4 KW at 440/690 V AC 50/60 Hz AC-3e 2.2 KW at 220...230 V AC 50/60 Hz AC-4 4 KW at 380...415 V AC 50/60 Hz AC-4 4 KW at 440/690 V AC 50/60 Hz AC-4
Auxiliary contact composition	1 NO
[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	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 220...230 V conforming to IEC 60947 110 A at 380...400 V conforming to IEC 60947 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 70 A at 660...690 V conforming to IEC 60947

[Icw] 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 VDE 0660
Average impedance	3 MOhm - Ith 20 A 50 Hz for power circuit
Insulation resistance	> 10 MOhm for signalling circuit
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
Control circuit voltage limits	Operational: 0.8...1.15 Uc (at <50 °C) Drop-out: >= 0.20 Uc (at <50 °C)
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
Maximum operating rate	3600 Cyc/H
Coil technology	Without built-in suppressor module
Auxiliary contacts type	Type instantaneous 1 NO
Signalling circuit frequency	<= 400 Hz
Minimum switching current	5 MA for signalling circuit
Minimum switching voltage	17 V for signalling circuit
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
Non overlap distance	0.5 Mm
Mechanical durability	10 Mcycles
Electrical durability	1.3 Mcycles 9 A AC-3 at Ue <= 440 V 1.3 Mcycles 9 A AC-3e at Ue <= 440 V 0.16 Mcycles 20 A AC-1 at Ue <= 690 V 0.02 Mcycles 54 A AC-4 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
Height	58 Mm
Width	45 Mm
Depth	57 Mm

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 IEC 60335-1:Clause 30.2 IEC 60335-2-40:Annex JJ UL 60335-2-40:Annex JJ
Product certifications	CB Scheme[RETURN]CCC[RETURN]UL[RETURN]CSA[RETURN]EAC[RETURN]CE[RETURN
Protective treatment	TC conforming to IEC 60068 TC conforming to DIN 50016
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

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	6.600 Cm
Package 1 Width	4.800 Cm
Package 1 Length	6.200 Cm
Package 1 Weight	178.000 G
Unit Type of Package 2	S02
Number of Units in Package 2	50
Package 2 Height	15.000 Cm
Package 2 Width	30.000 Cm
Package 2 Length	40.000 Cm
Package 2 Weight	9.253 Kg
Unit Type of Package 3	P06
Number of Units in Package 3	800
Package 3 Height	75.000 Cm
Package 3 Width	60.000 Cm
Package 3 Length	80.000 Cm
Package 3 Weight	159.435 Kg

Offer Sustainability

Recyclability potential, in %	63
Total lifecycle Carbon footprint	58 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	0.91401512148607
Carbon footprint of the manufacturing phase [A1 to A3]	0.9 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.35276280880753375
Carbon footprint of the distribution phase [A4]	0.4 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.024250978113109528
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	56.65241524409137
REACh free of SVHC	Yes
Carbon footprint of the use phase [B2, B3, B4, B6]	57 kg CO2 eq.
Toxic heavy metal free	Yes
Mercury free	Yes
Sustainable packaging	Yes
Carbon footprint of the end-of-life phase [C1 to C4]	0.25617272259369844
Carbon footprint of the end-of-life phase [C1 to C4]	0.3 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	58
Packaging made with recycled cardboard	Yes

Packaging without single use plastic	Yes
REACh Regulation	Free of Substances of Very High Concern above the threshold
EU RoHS Directive	Compliant
California proposition 65	WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxi
End of life manual availability	End Of Life Information
Take-back	No
WEEE Label	The product must be disposed on European Union markets following specific waste collection and

Contractual warranty

Warranty (in months)	18

Product Life Status : Commercialised