Product data sheet
Characteristics

LC7K1210F7
Contactor, TeSys K, 3P, AC-3/AC-3e,440V 12A, 1NO aux, 110V AC coil, screw clamp terminals



Main

Range	TeSys
Product or component type	Contactor
Device short name	LC7K
Device application	Control
Contactor application	Resistive load Motor control

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	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
Control circuit type	AC at 50/60 Hz silent
[Uc] control circuit voltage	110 V AC 50/60 Hz
Motor power kW	3 KW at 220...230 V AC 50/60 Hz AC-3 5.5 KW at 380...415 V AC 50/60 Hz AC-3 5.5 KW at 440 V AC 50/60 Hz AC-3 4 KW at 690 V AC 50/60 Hz AC-3 3 KW at 220...230 V AC 50/60 Hz AC-3e 5.5 KW at 380...415 V AC 50/60 Hz AC-3e 5.5 KW at 440 V AC 50/60 Hz AC-3e 4 KW at 690 V AC 50/60 Hz AC-3e 3 KW at 220...230 V AC 50/60 Hz AC-4 5.5 KW at 380...415 V AC 50/60 Hz AC-4 5.5 KW at 440 V AC 50/60 Hz AC-4 4 KW at 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	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 660...690 V conforming to IEC 60947
[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
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
Insulation resistance	> 10 MOhm for signalling circuit
Inrush power in VA	3 VA (at 20 °C)
Hold-in power consumption in VA	3 VA (at 20 °C)
Heat dissipation	3 W
Control circuit voltage limits	Operational: 0.85...1.1 Uc (at <50 °C) Drop-out: >= 0.10 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
Mounting support	Plate Rail
Tightening torque	0.8…1.3 N.M - on screw clamp terminals Philips No 2 0.8…1.3 N.M - on screw clamp terminals flat Ø 6 mm 0.8…1.3 N.M - on screw clamp terminals pozidriv No 2
Operating time	30...40 ms coil energisation and NO closing 30 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
Non overlap distance	0.5 Mm
Mechanical durability	10 Mcycles
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
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
Net weight	0.225 Kg

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
Product certifications	CB Scheme[RETURN]CCC[RETURN]UL[RETURN]CSA[RETURN]EAC[RETURN]CE[RETURN
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 storage	-50…80 °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

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	6.5 Cm
Package 1 Width	4.9 Cm
Package 1 Length	6.2 Cm
Package 1 Weight	219.0 G
Unit Type of Package 2	S02
Number of Units in Package 2	40
Package 2 Height	15.0 Cm
Package 2 Width	30.0 Cm
Package 2 Length	40.0 Cm
Package 2 Weight	9.215 Kg
Unit Type of Package 3	P06
Number of Units in Package 3	640
Package 3 Height	77.0 Cm
Package 3 Width	80.0 Cm
Package 3 Length	60.0 Cm
Package 3 Weight	159.78 Kg

Offer Sustainability

Recyclability potential, in %	63
Total lifecycle Carbon footprint	108 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	1.1245466944126368
Carbon footprint of the manufacturing phase [A1 to A3]	1 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.43401716364522414
Carbon footprint of the distribution phase [A4]	0.4 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.02983687756612914
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	106.22327858267136
REACh free of SVHC	Yes
Carbon footprint of the use phase [B2, B3, B4, B6]	106 kg CO2 eq.
Mercury free	Yes
Sustainable packaging	Yes
Carbon footprint of the end-of-life phase [C1 to C4]	0.3151787991461796
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	108

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
SCIP Number	B7d10624-820b-42cb-a985-485c51dc0f85
REACh Regulation	Free of Substances of Very High Concern above the threshold
EU RoHS Directive	Compliant By Exemption
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