

Product datasheet

Specifications



TeSys F contactor-4P(4 NO)-AC-1
≤ 440V 500A with coil LX1/LX9
-48...1000V AC 40/400Hz, LX4
-48...440V DC, LXE -100...250V AC
50/60Hz or 100...380V DC

LC1F4004

⚠ To be discontinued

⚠ To be discontinued on: 31 December 2023

Main

Range	TeSys
Product name	TeSys F
Product or component type	Contactors
Device short name	LC1F
Contactors application	Resistive load
Utilisation category	AC-1
Poles description	4P
Power pole contact composition	4 NO
[Ue] rated operational voltage	≤ 1000 V AC 50/60 Hz ≤ 460 V DC
[Ie] rated operational current	500 A (at <40 °C) at ≤ 440 V AC AC-1

Complementary

[Uc] control circuit voltage	48...1000 V AC 40...400 Hz with LX1/LX9 coil 48...440 V DC with LX4 coil 100...250 V AC 50/60 Hz with LXE coil 100...380 V DC with LXE coil
[Uimp] rated impulse withstand voltage	8 kV
Overvoltage category	III
[Ith] conventional free air thermal current	500 A (at 40 °C)
Irms rated making capacity	4000 A AC conforming to IEC 60947-4-1
Rated breaking capacity	3200 A conforming to IEC 60947-4-1
[Icw] rated short-time withstand current	3600 A 40 °C - 10 s 2400 A 40 °C - 30 s 1700 A 40 °C - 1 min 1200 A 40 °C - 3 min 1000 A 40 °C - 10 min
Associated fuse rating	400 A aM at ≤ 440 V 500 A gG at ≤ 440 V
Average impedance	0.26 mOhm - Ith 500 A 50 Hz
[Ui] rated insulation voltage	1000 V conforming to IEC 60947-4-1

	1500 V conforming to VDE 0110 group C
Power dissipation per pole	65 W AC-1
Control circuit voltage limits	Operational: 0.85...1.1 Uc AC 40...400 Hz with LX1/LX9 coil Drop-out: 0.3...0.5 Uc AC 40...400 Hz with LX1/LX9 coil Operational: 0.85...1.1 Uc DC with LX4 coil Drop-out: 0.2...0.35 Uc DC with LX4 coil Operational: 85...275 V AC 50/60 Hz with LXE coil Drop-out: 0...60 V AC 50/60 Hz with LXE coil Operational: 85...418 V DC with LXE coil Drop-out: 0...45 V DC with LXE coil
Heat dissipation	14 W 2.2...5.5 W
Operating time	40...75 ms closing for with LX1/LX9 coil 100...170 ms opening for with LX1/LX9 coil 50...60 ms closing for with LX4 coil 45...60 ms opening for with LX4 coil 40...80 ms closing for with LXE coil 6...54 ms opening for with LXE coil
Mounting support	Plate
Standards	JIS C8201-4-1 IEC 60947-4-1 IEC 60947-1 EN 60947-4-1 EN 60947-1
Product certifications	CB ABS DNV RMRoS LROS (Lloyds register of shipping) BV RINA UL CSA UKCA
Connections - terminals	Power circuit: bar 2 cable(s) - busbar cross section: 30 x 5 mm Power circuit: lugs-ring terminals 2 cable(s) 150 mm² Control circuit: screw clamp terminals 1 cable(s) 1...4 mm²flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm²flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm²flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm²solid without cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm² Control circuit: screw clamp terminals 2 cable(s) 1...4 mm² Control circuit: screw clamp terminals 1.0 cable(s) 0.2...2.5 mm²flexible without cable end Control circuit: screw clamp terminals 1.0 cable(s) 0.25...2.5 mm²flexible with cable end Control circuit: screw clamp terminals 1.0 cable(s) 0.2...2.5 mm²solid without cable end
Tightening torque	Power circuit: 35 N.m Control circuit: 1.2 N.m Control circuit: 0.6 N.m
Mechanical durability	10 Mcycles
Inrush power in VA	1000...1150 VA, 40...400 Hz cos phi 0.9 (at 20 °C)with LX1/LX9 coil 920...1140 VA (at 20 °C)with LX4 coil 360...470 VA, 50/60 Hz cos phi 0.5 (at 20 °C)with LXE coil 410...450 VA (at 20 °C)with LXE coil
Hold-in power consumption in VA	12...18 VA, 40...400 Hz cos phi 0.9 (at 20 °C)with LX1/LX9 coil 4...7.5 VA (at 20 °C)with LX4 coil 4.5...7.0 VA, 50/60 Hz cos phi 0.5 (at 20 °C)with LXE coil 2.5...4.0 VA (at 20 °C)with LXE coil
Maximum operating rate	2400 cyc/h 55 °C
Compatibility code	LC1F
Environment	
IP degree of protection	IP20 front face with shrouds conforming to IEC 60529 IP20 front face with shrouds conforming to VDE 0106
Protective treatment	TH
Ambient air temperature for operation	-5...55 °C
Ambient air temperature for storage	-60...80 °C

Permissible ambient air temperature around the device	-40...70 °C
Operating altitude	3000 m without derating
Mechanical robustness	Vibrations contactor open: 1.5 Gn, 5...300 Hz Vibrations contactor closed: 5 Gn, 5...300 Hz Shocks contactor open: 6 Gn for 1/2 sine wave (11 ms) Shocks contactor closed: 15 Gn for 1/2 sine wave (11 ms)
Height	206 mm
Width	261 mm
Depth	219 mm
Net weight	8 kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	25.600 cm
Package 1 Width	25.400 cm
Package 1 Length	30.200 cm
Package 1 Weight	9.712 kg
Unit Type of Package 2	P06
Number of Units in Package 2	8
Package 2 Height	77.000 cm
Package 2 Width	80.000 cm
Package 2 Length	60.000 cm
Package 2 Weight	89.620 kg

Offer Sustainability




Sustainable offer status	Green Premium product
REACH Regulation	REACH Declaration
EU RoHS Directive	Compliant EU RoHS Declaration
Mercury free	Yes
China RoHS Regulation	China RoHS declaration Product out of China RoHS scope. Substance declaration for your information
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Contractual warranty




Warranty	18 months
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Recommended replacement(s)

LC1F4004 is replaced by the following group of products:

1x		High power contactor, TeSys Giga, 4 pole (4NO), AC-1 <=440V 550A, standard version, 48...130V wide band AC/DC coil LC1G4004EHEN
1x		High power contactor, TeSys Giga, 4 pole (4NO), AC-1 <=440V 550A, standard version, 100...250V wide band AC/DC coil LC1G4004KUEN
1x		High power contactor, TeSys Giga, 4 pole (4NO), AC-1 <=440V 550A, advanced version, 200...500V wide band AC/DC coil LC1G4004LSEA

Or LC1F4004 may be replaced by any of the following products:

1x		High power contactor, TeSys Giga, 4 pole (4NO), AC-1 <=440V 550A, advanced version, 200...500V wide band AC/DC coil LC1G4004LSEA
1x		High power contactor, TeSys Giga, 4 pole (4NO), AC-1 <=440V 550A, standard version, 48...130V wide band AC/DC coil LC1G4004EHEN
1x		High power contactor, TeSys Giga, 4 pole (4NO), AC-1 <=440V 550A, standard version, 100...250V wide band AC/DC coil LC1G4004KUEN