

# Product datasheet

Specifications



TeSys F contactor - 4P(4 NO)-AC-1  
≤ 440V 700A with coil LX1/ LX9  
- 48...1000V AC 40/400Hz, LX4 -  
48...440V DC

LC1F5004

⚠ To be discontinued

⚠ To be discontinued on: 31 December 2023

## Main

Range	TeSys
Product name	TeSys F
Product or component type	Contactor
Device short name	LC1F
Contactor 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	700 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
[Uimp] rated impulse withstand voltage	8 kV
Overvoltage category	III
[Ith] conventional free air thermal current	700 A (at 40 °C)
Irms rated making capacity	5000 A AC conforming to IEC 60947-4-1
Rated breaking capacity	4000 A conforming to IEC 60947-4-1
[Icw] rated short-time withstand current	4200 A 40 °C - 10 s 3200 A 40 °C - 30 s 2400 A 40 °C - 1 min 1500 A 40 °C - 3 min 1200 A 40 °C - 10 min
Associated fuse rating	500 A aM at ≤ 440 V 800 A gG at ≤ 440 V
Average impedance	0.18 mOhm - Ith 700 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	88 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
Heat dissipation	18 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
Mounting support	Plate
Standards	JIS C8201-4-1 EN 60947-1 IEC 60947-1 EN 60947-4-1 IEC 60947-4-1
Product certifications	CSA LROS (Lloyds register of shipping) DNV BV ABS CB RMRoS RINA UL UKCA
Connections - terminals	Power circuit: lugs-ring terminals 2 cable(s) 240 mm <sup>2</sup> Power circuit: bar 2 cable(s) - busbar cross section: 40 x 5 mm Power circuit: bolted connection Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm <sup>2</sup> solid without cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> Control circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup>
Tightening torque	Power circuit: 35 N.m Control circuit: 1.2 N.m
Mechanical durability	10 Mcycles
Inrush power in VA	1050...1150 VA, 40...400 Hz cos phi 0.9 (at 20 °C)with LX1/LX9 coil 990...1220 VA (at 20 °C)with LX4 coil
Hold-in power consumption in VA	16...20 VA, 40...400 Hz cos phi 0.9 (at 20 °C)with LX1/LX9 coil 4.54...8 VA (at 20 °C)with LX4 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: 2 Gn, 5...300 Hz Vibrations contactor closed: 4 Gn, 5...300 Hz Shocks contactor open: 9 Gn for 1/2 sine wave (11 ms) Shocks contactor closed: 15 Gn for 1/2 sine wave (11 ms)
Height	238 mm
Width	288 mm
Depth	232 mm
Net weight	9.75 kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	27.500 cm
Package 1 Width	29.500 cm
Package 1 Length	34.500 cm
Package 1 Weight	12.558 kg
Unit Type of Package 2	P06
Number of Units in Package 2	8
Package 2 Height	75.000 cm
Package 2 Width	60.000 cm
Package 2 Length	80.000 cm
Package 2 Weight	111.604 kg

Offer Sustainability




Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Compliant <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
China RoHS Regulation	<a href="#">China RoHS declaration</a> Product out of China RoHS scope. Substance declaration for your information
RoHS exemption information	<a href="#">Yes</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End of Life Information</a>
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)

LC1F5004 is replaced by the following group of products:

1x		High power contactor, TeSys Giga, 4 pole (4NO), AC-1 <=440V 700A, standard version, 48...130V wide band AC/DC coil LC1G5004EHEN
1x		High power contactor, TeSys Giga, 4 pole (4NO), AC-1 <=440V 700A, standard version, 100...250V wide band AC/DC coil LC1G5004KUEN
1x		High power contactor, TeSys Giga, 4 pole (4NO), AC-1 <=440V 700A, advanced version, 200...500V wide band AC/DC coil LC1G5004LSEA

Or LC1F5004 may be replaced by any of the following products:

1x		High power contactor, TeSys Giga, 4 pole (4NO), AC-1 <=440V 700A, advanced version, 200...500V wide band AC/DC coil LC1G5004LSEA
1x		High power contactor, TeSys Giga, 4 pole (4NO), AC-1 <=440V 700A, standard version, 48...130V wide band AC/DC coil LC1G5004EHEN
1x		High power contactor, TeSys Giga, 4 pole (4NO), AC-1 <=440V 700A, standard version, 100...250V wide band AC/DC coil LC1G5004KUEN