

# Product datasheet

Specifications



TeSys F contactor-4P(4 NO)-AC-1  
≤ 440V 400A with coil LX1/LX9  
-24...1000V AC 40/400Hz, LX4  
-24...460V DC, LXE -100...250V AC  
50/60Hz or 100...380V DC

LC1F3304

⚠ 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	400 A (at <40 °C) at ≤ 440 V AC AC-1

## Complementary

[Uc] control circuit voltage	24...1000 V AC 40...400 Hz with LX1/LX9 coil 24...460 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	400 A (at 40 °C)
Irms rated making capacity	3300 A AC conforming to IEC 60947-4-1
Rated breaking capacity	2640 A conforming to IEC 60947-4-1
[Icw] rated short-time withstand current	2650 A 40 °C - 10 s 1800 A 40 °C - 30 s 1300 A 40 °C - 1 min 900 A 40 °C - 3 min 750 A 40 °C - 10 min
Associated fuse rating	400 A aM at ≤ 440 V 500 A gG at ≤ 440 V
Average impedance	0.28 mOhm - Ith 400 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	44 W AC-1
Control circuit voltage limits	Operational: 0.85...1.1 Uc AC 40...400 Hz with LX1/LX9 coil Drop-out: 0.35...0.55 Uc AC 40...400 Hz with LX1/LX9 coil Operational: 0.85...1.1 Uc DC with LX4 coil Drop-out: 0.15...0.2 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	8 W 2.2...5.5 W
Operating time	40...65 ms closing for with LX1/LX9 coil 100...170 ms opening for with LX1/LX9 coil 40...50 ms closing for with LX4 coil 40...65 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	IEC 60947-4-1 JIS C8201-4-1 EN 60947-1 IEC 60947-1 EN 60947-4-1
Product certifications	ABS CSA UL RMRoS DNV CB BV LROS (Lloyds register of shipping) RINA UKCA
Connections - terminals	Power circuit: lugs-ring terminals 1 cable(s) 240 mm <sup>2</sup> Power circuit: bar 2 cable(s) - busbar cross section: 30 x 5 mm 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> Control circuit: screw clamp terminals 1.0 cable(s) 0.2...2.5 mm <sup>2</sup> flexible without cable end Control circuit: screw clamp terminals 1.0 cable(s) 0.25...2.5 mm <sup>2</sup> flexible with cable end Control circuit: screw clamp terminals 1.0 cable(s) 0.2...2.5 mm <sup>2</sup> solid 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	600...700 VA, 40...400 Hz cos phi 0.9 (at 20 °C)with LX1/LX9 coil 655...803 VA (at 20 °C)with LX4 coil 300...350 VA, 50/60 Hz cos phi 0.5 (at 20 °C)with LXE coil 300...310 VA (at 20 °C)with LXE coil
Hold-in power consumption in VA	8...10 VA, 40...400 Hz cos phi 0.9 (at 20 °C)with LX1/LX9 coil 3.68...4.53 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: 2 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	9.5 kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	25.000 cm
Package 1 Width	24.000 cm
Package 1 Length	31.500 cm
Package 1 Weight	10.059 kg
Unit Type of Package 2	P06
Number of Units in Package 2	10
Package 2 Height	75.000 cm
Package 2 Width	60.000 cm
Package 2 Length	80.000 cm
Package 2 Weight	110.420 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)

LC1F3304 is replaced by the following group of products:

1x		High power contactor, TeSys Giga, 4 pole (4NO), AC-1 <=440V 440A, standard version, 48...130V wide band AC/DC coil LC1G3304EHEN
1x		High power contactor, TeSys Giga, 4 pole (4NO), AC-1 <=440V 440A, standard version, 100...250V wide band AC/DC coil LC1G3304KUEN
1x		High power contactor, TeSys Giga, 4 pole (4NO), AC-1 <=440V 440A, advanced version, 200...500V wide band AC/DC coil LC1G3304LSEA

Or LC1F3304 may be replaced by any of the following products:

1x		High power contactor, TeSys Giga, 4 pole (4NO), AC-1 <=440V 440A, advanced version, 200...500V wide band AC/DC coil LC1G3304LSEA
1x		High power contactor, TeSys Giga, 4 pole (4NO), AC-1 <=440V 440A, standard version, 48...130V wide band AC/DC coil LC1G3304EHEN
1x		High power contactor, TeSys Giga, 4 pole (4NO), AC-1 <=440V 440A, standard version, 100...250V wide band AC/DC coil LC1G3304KUEN