

# LC1F330

TeSys F contactor-3P(3 NO)-AC-3 <= 440V 330A  
with coil LX1/LX9 -24...1000V AC 40/400Hz, LX4  
-24...460V DC, LXE -100...250V AC 50/60Hz or  
100...380V DC



## Main

Range	TeSys
Product name	TeSys F
Product or component type	Contactor
Device short name	LC1F
Contactor application	Motor control Resistive load
Utilisation category	AC-4 AC-3 AC-1
Poles description	3P
Power pole contact composition	3 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-1 330 A (at <55 °C) at <= 440 V AC AC-3
Motor power kW	160 kW at 1000 V AC 50/60 Hz (AC-3) 160 kW at 380...400 V AC 50/60 Hz (AC-3) 180 kW at 415 V AC 50/60 Hz (AC-3) 200 kW at 440 V AC 50/60 Hz (AC-3) 200 kW at 500 V AC 50/60 Hz (AC-3) 100 kW at 220...240 V AC 50/60 Hz (AC-3) 220 kW at 660...690 V AC 50/60 Hz (AC-3) 59 kW at 400 V AC 50/60 Hz (AC-4)

## 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
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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 31 W AC-3
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
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
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	213 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 Weight	8.522 kg
Package 1 Height	25.2 cm
Package 1 width	25.4 cm
Package 1 Length	30.4 cm
Unit Type of Package 2	CAR
Number of Units in Package 2	1
Package 2 Weight	8.522 kg
Package 2 Height	25 cm
Package 2 width	25 cm
Package 2 Length	35 cm
Unit Type of Package 3	P06
Number of Units in Package 3	10
Package 3 Weight	93.02 kg
Package 3 Height	80 cm
Package 3 width	80 cm
Package 3 Length	60 cm

## Offer Sustainability

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

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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

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**Contractual warranty**

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Warranty	18 months
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