

# Product datasheet

Specifications



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

LC1F330

⚠ 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	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 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

<b>[Icw] rated short-time withstand current</b>	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
<b>Associated fuse rating</b>	400 A aM at ≤ 440 V 500 A gG at ≤ 440 V
<b>Average impedance</b>	0.28 mOhm - Ith 400 A 50 Hz
<b>[Ui] rated insulation voltage</b>	1000 V conforming to IEC 60947-4-1 1500 V conforming to VDE 0110 group C
<b>Power dissipation per pole</b>	44 W AC-1 31 W AC-3
<b>Control circuit voltage limits</b>	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
<b>Heat dissipation</b>	8 W 2.2...5.5 W
<b>Operating time</b>	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
<b>Mounting support</b>	Plate
<b>Standards</b>	IEC 60947-4-1 JIS C8201-4-1 EN 60947-1 IEC 60947-1 EN 60947-4-1
<b>Product certifications</b>	ABS CSA UL RMRoS DNV CB BV LROS (Lloyds register of shipping) RINA UKCA
<b>Connections - terminals</b>	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
<b>Tightening torque</b>	Power circuit: 35 N.m Control circuit: 1.2 N.m Control circuit: 0.6 N.m
<b>Mechanical durability</b>	10 Mcycles
<b>Inrush power in VA</b>	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
<b>Hold-in power consumption in VA</b>	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
<b>Maximum operating rate</b>	2400 cyc/h 55 °C
<b>Compatibility code</b>	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	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 Height	25.000 cm
Package 1 Width	25.000 cm
Package 1 Length	35.000 cm
Package 1 Weight	8.420 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	93.720 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

### Recommended replacement(s)

LC1F330 is replaced by the following group of products:

1x		High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 330A, standard version, 48...130V wide band AC/DC coil LC1G330EHEN
1x		High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 330A, standard version, 100...250V wide band AC/DC coil LC1G330KUEN
1x		High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 330A, advanced version, 200...500V wide band AC/DC coil LC1G330LSEA

Or LC1F330 may be replaced by any of the following products:

1x		High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 330A, standard version, 48...130V wide band AC/DC coil LC1G330EHEN
1x		High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 330A, advanced version, 200...500V wide band AC/DC coil LC1G330LSEA
1x		High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 330A, standard version, 100...250V wide band AC/DC coil LC1G330KUEN