

# Product datasheet

Specifications



TeSys F contactor - 3P(3 NO)-  
AC-3  $\leq$  440V 150A with coil LX9  
- 24...600V AC 40/400Hz, LX4 -  
24...460V DC, LXE - 100...250V AC  
50/60Hz or 100...380V DC

LC1F150

**!** 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 Motor control
Utilisation category	AC-1 AC-4 AC-3
Poles description	3P
Power pole contact composition	3 NO
[Ue] rated operational voltage	$\leq$ 690 V AC 50/60 Hz $\leq$ 460 V DC
[Ie] rated operational current	250 A (at $\leq$ 40 °C) at $\leq$ 440 V AC-1 150 A (at $\leq$ 55 °C) at $\leq$ 440 V AC-3
Motor power kW	75 kW at 380...400 V AC 50/60 Hz (AC-3) 80 kW at 415 V AC 50/60 Hz (AC-3) 80 kW at 440 V AC 50/60 Hz (AC-3) 90 kW at 500 V AC 50/60 Hz (AC-3) 40 kW at 220...240 V AC 50/60 Hz (AC-3) 100 kW at 660...690 V AC 50/60 Hz (AC-3) 22 kW at 400 V AC 50/60 Hz (AC-4)

## Complementary

[Uc] control circuit voltage	24...575 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	250 A (at 40 °C)
Irms rated making capacity	1500 A conforming to IEC 60947-4-1
Rated breaking capacity	1200 A conforming to IEC 60947-4-1

<b>[Icw] rated short-time withstand current</b>	1200 A 40 °C - 10 s 700 A 40 °C - 30 s 600 A 40 °C - 1 min 450 A 40 °C - 3 min 350 A 40 °C - 10 min
<b>Associated fuse rating</b>	160 A aM at ≤ 440 V 250 A gG at ≤ 440 V
<b>Average impedance</b>	0.35 mOhm - Ith 250 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>	22 W AC-1 8 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: 0.2...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>	5.9...7.2 W 2.2...2.5 W
<b>Operating time</b>	35 ms closing for with LX1/LX9 coil 130 ms opening for with LX1/LX9 coil 30...40 ms closing for with LX4 coil 30...50 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 EN 60947-4-1 IEC 60947-1 EN 60947-1 JIS C8201-4-1
<b>Product certifications</b>	RINA CSA BV RMRoS LROS (Lloyds register of shipping) DNV ABS UL CB UKCA
<b>Connections - terminals</b>	Power circuit: lugs-ring terminals 1 cable(s) 120 mm <sup>2</sup> - busbar cross section: 25 x 3 mm Power circuit: connector 1 cable(s) 120 mm <sup>2</sup> Power circuit: bar 2 cable(s) 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> 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: 18 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>	690...855 VA, 40...400 Hz cos phi 0.9 (at 20 °C)with LX1/LX9 coil 543...665 VA (at 20 °C)with LX4 coil 280...310 VA, 50/60 Hz cos phi 0.5 (at 20 °C)with LXE coil 270...320 VA (at 20 °C)with LXE coil
<b>Hold-in power consumption in VA</b>	6.6...8.1 VA, 40...400 Hz cos phi 0.9 (at 20 °C)with LX1/LX9 coil 3.94...4.83 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

<b>IP degree of protection</b>	IP2X front face with shrouds conforming to IEC 60529 IP2X front face with shrouds conforming to VDE 0106
<b>Protective treatment</b>	TH
<b>Ambient air temperature for operation</b>	-40...60 °C
<b>Ambient air temperature for storage</b>	-60...80 °C
<b>Permissible ambient air temperature around the device</b>	60...70 °C at Uc
<b>Operating altitude</b>	3000 m without derating
<b>Mechanical robustness</b>	Vibrations contactor open: 2 Gn, 5...300 Hz Vibrations contactor closed: 6 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)
<b>Height</b>	170 mm
<b>Width</b>	163.5 mm
<b>Depth</b>	171 mm
<b>Net weight</b>	3.83 kg

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	22.000 cm
<b>Package 1 Width</b>	19.600 cm
<b>Package 1 Length</b>	24.000 cm
<b>Package 1 Weight</b>	3.588 kg
<b>Unit Type of Package 2</b>	P06
<b>Number of Units in Package 2</b>	18
<b>Package 2 Height</b>	75.000 cm
<b>Package 2 Width</b>	60.000 cm
<b>Package 2 Length</b>	80.000 cm
<b>Package 2 Weight</b>	74.000 kg

## Offer Sustainability

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

LC1F150 is replaced by the following group of products:

1x		High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 150A, standard version, 48...130V wide band AC/DC coil LC1G150EHEN
1x		High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 150A, standard version, 100...250V wide band AC/DC coil LC1G150KUEN
1x		High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 150A, advanced version, 200...500V wide band AC/DC coil LC1G150LSEA

Or LC1F150 may be replaced by any of the following products:

1x		High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 150A, standard version, 48...130V wide band AC/DC coil LC1G150EHEN
1x		High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 150A, advanced version, 200...500V wide band AC/DC coil LC1G150LSEA
1x		High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 150A, standard version, 100...250V wide band AC/DC coil LC1G150KUEN