

# Product data sheet

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

IP degree of protection	IP2x front face with shrouds conforming to IEC 60529 IP2x front face with shrouds conforming to VDE 0106
Protective treatment	TH
Ambient air temperature for operation	-40...60 °C
Ambient air temperature for storage	-60...80 °C
Permissible ambient air temperature around the device	60...70 °C at Uc
Operating altitude	3000 m without derating
Mechanical robustness	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)
Height	170 mm
Width	163.5 mm
Depth	171 mm
Net weight	3.83 kg

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	3.588 kg
Package 1 Height	22 cm
Package 1 width	19.6 cm
Package 1 Length	24 cm
Unit Type of Package 2	P06
Number of Units in Package 2	18
Package 2 Weight	73.084 kg
Package 2 Height	77 cm
Package 2 width	80 cm
Package 2 Length	60 cm
Package 3 Height	80 cm

## 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
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>
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)

LC1F150 is replaced by the following group of products:

Linking to group 1

1x



High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 150A, advanced version, 24...48V wide band AC/DC coil  
LC1G150BEEA

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