

# Product data sheet

Specifications



contactor, TeSys F, 3P(3NO), AC-3, <=440V 115A, with coil LX9: 24...600V AC 40/400Hz, LX4: 24...460V DC, LXE: 100...250V AC 50/60Hz or 100...380V DC

LC1F115

⚠ To be discontinued

⚠ To be discontinued on: 31 December 2023

## Main

Range	TeSys
Product name	TeSys F
Product or component type	Contacteur
Device short name	LC1F
Contacteur 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	<= 690 V AC 50/60 Hz <= 460 V DC
[Ie] rated operational current	200 A (at <40 °C) at <= 440 V AC-1 115 A (at <55 °C) at <= 440 V AC-3
Motor power kW	55 kW at 380...400 V AC 50/60 Hz (AC-3) 59 kW at 415 V AC 50/60 Hz (AC-3) 59 kW at 440 V AC 50/60 Hz (AC-3) 75 kW at 500 V AC 50/60 Hz (AC-3) 30 kW at 220...240 V AC 50/60 Hz (AC-3) 80 kW at 660...690 V AC 50/60 Hz (AC-3) 18.5 kW at 400 V AC 50/60 Hz (AC-4)

## Complementary

[Uc] control circuit voltage	24...575 V AC 40...400 Hz with 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	200 A (at 40 °C)
Irms rated making capacity	1150 A conforming to IEC 60947-4-1
Rated breaking capacity	920 A conforming to IEC 60947-4-1

<b>[Icw] rated short-time withstand current</b>	1100 A 40 °C - 10 s 640 A 40 °C - 30 s 520 A 40 °C - 1 min 400 A 40 °C - 3 min 320 A 40 °C - 10 min
<b>Associated fuse rating</b>	125 A aM at ≤ 440 V 200 A gG at ≤ 440 V
<b>Average impedance</b>	0.37 mOhm - Ith 200 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>	15 W AC-1 5 W AC-3
<b>Control circuit voltage limits</b>	Operational: 0.85...1.1 Uc AC 40...400 Hz with LX9 coil Drop-out: 0.2...0.55 Uc AC 40...400 Hz with 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...5.5 W
<b>Operating time</b>	35 ms closing for with LX9 coil 130 ms opening for with 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>	EN 60947-1 JIS C8201-4-1 IEC 60947-4-1 EN 60947-4-1 IEC 60947-1
<b>Product certifications</b>	RINA ABS CSA DNV RMRoS BV LROS (Lloyds register of shipping) UL CB UKCA
<b>Connections - terminals</b>	Power circuit: lugs-ring terminals 1 cable(s) 95 mm <sup>2</sup> Power circuit: connector 1 cable(s) 95 mm <sup>2</sup> Power circuit: bar 2 cable(s) - busbar cross section: 20 x 3 mm 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: 10 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>	590...855 VA, 40...400 Hz cos phi 0.9 (at 20 °C)with 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 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>	162 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>	20.000 cm
<b>Package 1 Length</b>	24.500 cm
<b>Package 1 Weight</b>	3.522 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>	71.896 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)

LC1F115 may be replaced by any of the following products:

1x



High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 115A, advanced version, 24...48V wide band AC/DC coil  
LC1G115BEEA

1x



High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 115A, advanced version, 48...130V wide band AC/DC coil  
LC1G115EHEA

1x



High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 115A, standard version, 48...130V wide band AC/DC coil  
LC1G115EHEN

1x



High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 115A, advanced version, 200...500V wide band AC/DC coil  
LC1G115LSEA

1x



High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 115A, standard version, 100...250V wide band AC/DC coil  
LC1G115KUEN