

# Product datasheet

Specifications



TeSys F contactor - 3P(3 NO)-  
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	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	<= 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

[Icw] rated short-time withstand current	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
Associated fuse rating	125 A aM at <= 440 V 200 A gG at <= 440 V
Average impedance	0.37 mOhm - Ith 200 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	15 W AC-1 5 W AC-3
Control circuit voltage limits	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
Heat dissipation	5.9...7.2 W 2.2...5.5 W
Operating time	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
Mounting support	Plate
Standards	EN 60947-1 JIS C8201-4-1 IEC 60947-4-1 EN 60947-4-1 IEC 60947-1
Product certifications	RINA ABS CSA DNV RMRoS BV LROS (Lloyds register of shipping) UL CB UKCA
Connections - terminals	Power circuit: lugs-ring terminals 1 cable(s) 95 mm² Power circuit: connector 1 cable(s) 95 mm² 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 mm²flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm²flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm²flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm²solid without cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm² Control circuit: screw clamp terminals 2 cable(s) 1...4 mm² Control circuit: screw clamp terminals 1.0 cable(s) 0.2...2.5 mm²flexible without cable end Control circuit: screw clamp terminals 1.0 cable(s) 0.25...2.5 mm²flexible with cable end Control circuit: screw clamp terminals 1.0 cable(s) 0.2...2.5 mm²solid without cable end
Tightening torque	Power circuit: 10 N.m Control circuit: 1.2 N.m Control circuit: 0.6 N.m
Mechanical durability	10 Mcycles
Inrush power in VA	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
Hold-in power consumption in VA	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
Maximum operating rate	2400 cyc/h 55 °C
Compatibility code	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	162 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 Height	22.000 cm
Package 1 Width	20.000 cm
Package 1 Length	24.500 cm
Package 1 Weight	3.522 kg
Unit Type of Package 2	P06
Number of Units in Package 2	18
Package 2 Height	75.000 cm
Package 2 Width	60.000 cm
Package 2 Length	80.000 cm
Package 2 Weight	71.896 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

Warranty18 months

Recommended replacement(s)

LC1F115 is replaced by the following group of products:

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, standard version, 100...250V wide band AC/DC coil LC1G115KUEN
1x		High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 115A, advanced version, 200...500V wide band AC/DC coil LC1G115LSEA

Or LC1F115 may be replaced by any of the following products:

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