

Product data sheet

Specifications



contactor, TeSys F, 3P(3NO), AC-3,
<=440V 1100A with coil LX1/ LX9
48...1000V AC 40/400Hz, LX4
48...440V DC

LC1F500

⚠ 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-4 AC-1 AC-3
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	700 A (at <40 °C) at <= 440 V AC AC-1 500 A (at <55 °C) at <= 440 V AC AC-3
Motor power kW	250 kW at 380...400 V AC 50/60 Hz (AC-3) 280 kW at 415 V AC 50/60 Hz (AC-3) 295 kW at 440 V AC 50/60 Hz (AC-3) 335 kW at 1000 V AC 50/60 Hz (AC-3) 355 kW at 500 V AC 50/60 Hz (AC-3) 147 kW at 220...240 V AC 50/60 Hz (AC-3) 335 kW at 660...690 V AC 50/60 Hz (AC-3) 80 kW at 400 V AC 50/60 Hz (AC-4)

Complementary

[Uc] control circuit voltage	48...1000 V AC 40...400 Hz with LX1/LX9 coil 48...440 V DC with LX4 coil
[Uimp] rated impulse withstand voltage	8 kV
Overvoltage category	III
[Ith] conventional free air thermal current	700 A (at 40 °C)
Irms rated making capacity	5000 A AC conforming to IEC 60947-4-1
Rated breaking capacity	4000 A conforming to IEC 60947-4-1
[Icw] rated short-time withstand current	4200 A 40 °C - 10 s 3200 A 40 °C - 30 s 2400 A 40 °C - 1 min 1500 A 40 °C - 3 min

	1200 A 40 °C - 10 min
Associated fuse rating	500 A aM at <= 440 V 800 A gG at <= 440 V
Average impedance	0.18 mOhm - lth 700 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	88 W AC-1 45 W AC-3
Control circuit voltage limits	Operational: 0.85...1.1 Uc AC 40...400 Hz with LX1/LX9 coil Drop-out: 0.3...0.5 Uc AC 40...400 Hz with LX1/LX9 coil Operational: 0.85...1.1 Uc DC with LX4 coil Drop-out: 0.2...0.35 Uc DC with LX4 coil
Heat dissipation	18 W
Operating time	40...75 ms closing for with LX1/LX9 coil 100...170 ms opening for with LX1/LX9 coil 50...60 ms closing for with LX4 coil 45...60 ms opening for with LX4 coil
Mounting support	Plate
Standards	JIS C8201-4-1 EN 60947-1 IEC 60947-1 EN 60947-4-1 IEC 60947-4-1
Product certifications	CSA LROS (Lloyds register of shipping) DNV BV ABS CB RMRoS RINA UL UKCA
Connections - terminals	Power circuit: lugs-ring terminals 2 cable(s) 240 mm² Power circuit: bar 2 cable(s) - busbar cross section: 40 x 5 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
Tightening torque	Power circuit: 35 N.m Control circuit: 1.2 N.m
Mechanical durability	10 Mcycles
Inrush power in VA	1050...1150 VA, 40...400 Hz cos phi 0.9 (at 20 °C)with LX1/LX9 coil 990...1220 VA (at 20 °C)with LX4 coil
Hold-in power consumption in VA	16...20 VA, 40...400 Hz cos phi 0.9 (at 20 °C)with LX1/LX9 coil 4.54...8 VA (at 20 °C)with LX4 coil
Maximum operating rate	2400 cyc/h 55 °C
Compatibility code	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: 4 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	238 mm
Width	233 mm
Depth	232 mm
Net weight	9.75 kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	27.500 cm
Package 1 Width	30.000 cm
Package 1 Length	30.000 cm
Package 1 Weight	10.398 kg
Unit Type of Package 2	P06
Number of Units in Package 2	8
Package 2 Height	75.000 cm
Package 2 Width	60.000 cm
Package 2 Length	80.000 cm
Package 2 Weight	92.332 kg

Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	REACH Declaration
EU RoHS Directive	Compliant EU RoHS Declaration
Mercury free	Yes
China RoHS Regulation	China RoHS declaration Product out of China RoHS scope. Substance declaration for your information
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Contractual warranty

Warranty	18 months
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Recommended replacement(s)

LC1F500 may be replaced by any of the following products:

1x



High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 500A, advanced version, 24...48V wide band AC/DC coil
LC1G500BEEA

1x



High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 500A, advanced version, 48...130V wide band AC/DC coil
LC1G500EHEA

1x



High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 500A, advanced version, 200...500V wide band AC/DC coil
LC1G500LSEA

1x



High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 500A, standard version, 48...130V wide band AC/DC coil
LC1G500EHEN

1x



High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 500A, standard version, 100...250V wide band AC/DC coil
LC1G500KUEN