

Product data sheet

Specifications



TeSys F contactor - 3P (3 NO) - AC-3 - ≤ 440 V 500 A - coil 440 V AC

LC1F500R7

Main

Range	TeSys
Range of product	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
[Ue] rated operational voltage	≤ 1000 V AC 50/60 Hz ≤ 460 V DC
[Uc] control circuit voltage	440 V AC 40...400 Hz
[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

Complementary

[Uimp] rated impulse withstand voltage	8 kV
[Ith] conventional free air thermal current	700 A (at 40 °C)
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 - Ith 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
Overvoltage category	III
Power pole contact composition	3 NO

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) 355 kW at 500 V AC 50/60 Hz (AC-3) 335 kW at 660...690 V AC 50/60 Hz (AC-3) 335 kW at 1000 V AC 50/60 Hz (AC-3) 147 kW at 220...230 V AC 50/60 Hz (AC-3) 80 kW at 400 V AC 50/60 Hz (AC-4)
Control circuit voltage limits	Operational: 0.85...1.1 Uc 40...400 Hz (at 55 °C) Drop-out: 0.3...0.5 Uc 40...400 Hz (at 55 °C)
Mechanical durability	10 Mcycles
Inrush power in VA	1100 VA, 40...400 Hz cos phi 0.9 (at 20 °C)
Hold-in power consumption in VA	18 VA, 40...400 Hz cos phi 0.9 (at 20 °C)
Maximum operating rate	2400 cyc/h 55 °C
Operating time	40...65 ms closing 100...170 ms opening
Connections - terminals	Control circuit: screw clamp terminals 1 cable(s) 1...4 mm ² flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm ² flexible without cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm ² flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm ² flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm ² solid without cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm ² solid without cable end Power circuit: bar 2 cable(s) - busbar cross section: 40 x 5 mm Power circuit: lugs-ring terminals 2 cable(s) 240 mm ² Power circuit: bolted connection
Tightening torque	Control circuit: 1.2 N.m Power circuit: 35 N.m
Mounting support	Plate
Heat dissipation	18 W
Standards	JIS C8201-4-1 IEC 60947-1 EN 60947-1 IEC 60947-4-1 EN 60947-4-1
Product certifications	LROS (Lloyds register of shipping) DNV CB ABS CCC UL BV RMRoS RINA UKCA
Compatibility code	LC1F
Control circuit type	AC at 40...400 Hz

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
Height	238 mm
Width	233 mm
Depth	232 mm
Operating altitude	3000 m without derating

Net weight	11.35 kg
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Packing Units

Unit Type of Package 1	PCE
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Number of Units in Package 1	1
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Package 1 Height	27.5 cm
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Package 1 Width	30.0 cm
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Package 1 Length	30.0 cm
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Package 1 Weight	11.82 kg
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Offer Sustainability

Sustainable offer status	Green Premium product
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REACH Regulation	REACH Declaration
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EU RoHS Directive	Compliant EU RoHS Declaration
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Mercury free	Yes
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China RoHS Regulation	China RoHS declaration Product out of China RoHS scope. Substance declaration for your information
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RoHS exemption information	Yes
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Environmental Disclosure	Product Environmental Profile
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Circularity Profile	End of Life Information
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WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
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Contractual warranty

Warranty	18 months
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