

Product datasheet

Specifications



TeSys F contactor - 3P (3 NO) - AC-3 - <= 440 V 500 A - coil 380 V AC

LC1F500Q7

⚠ Discontinued on: 31 Dec 2023

⚠ End-of-service on: 31 Mar 2024

⚠ To be discontinued

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-1 AC-3 AC-4
Poles description	3P
[Ue] rated operational voltage	<= 1000 V AC 50/60 Hz <= 460 V DC
[Uc] control circuit voltage	380 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

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

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 mm²flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm²flexible without 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 mm²flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm²solid without cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm²solid 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 mm² 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	EN 60947-4-1 IEC 60947-4-1 IEC 60947-1 JIS C8201-4-1 EN 60947-1
Product certifications	DNV CB RMRoS RINA CCC LROS (Lloyds register of shipping) BV ABS UL 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

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	27.0 cm
Package 1 Width	29.5 cm
Package 1 Length	29.5 cm
Package 1 Weight	11.825 kg

Contractual warranty

Warranty (in months)	18
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Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

 Environmental footprint	
Total lifecycle Carbon footprint	4 052 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Carbon footprint of the manufacturing phase [A1 to A3]	69 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	4 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	3 957 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	22 kg CO2 eq.

Use Better

 Materials and Substances	
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
EU RoHS Directive	Compliant with Exemptions
SCIP Number	975ba4d0-bc82-40e2-8faa-6f6819f63b0c
REACH Regulation	REACH Declaration

Use Longer

 Lifetime extension	
Repair	No

Use Again

 Repack and remanufacture	
Recyclability potential, in %	95
End of life manual availability	End of Life Information
Take-back	No
WEEE Label	 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins