

LC1F500ED

TeSys F contactor - 3P (3 NO) - AC-3 - ≤ 440 V
500 A - coil 48 V DC



Main

Range	TeSys
Product name	TeSys F
Product or component type	Contacteur
Device short name	LC1F
Contacteur application	Motor control Resistive load
Utilisation category	AC-1 AC-3
Poles description	3P
Pole contact composition	3 NO
[Ue] rated operational voltage	≤ 1000 V AC 50/60 Hz ≤ 460 V DC
[Ie] rated operational current	700 A (≤ 40 °C) at ≤ 440 V AC AC-1 500 A (≤ 55 °C) at ≤ 440 V AC AC-3
Motor power kW	147 kW at 220...230 V AC 50/60 Hz 250 kW at 380...400 V AC 50/60 Hz 280 kW at 415 V AC 50/60 Hz 295 kW at 440 V AC 50/60 Hz 335 kW at 1000 V AC 50/60 Hz 355 kW at 500 V AC 50/60 Hz 335 kW at 660...690 V AC 50/60 Hz
Control circuit type	DC standard
Control circuit voltage	48 V DC
[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 kA 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 at 50 Hz - Ith 700 A
[Ui] rated insulation voltage	1000 V conforming to IEC 60947-4-1 1500 V conforming to VDE 0110 group C
Power dissipation per pole	45 W AC-3 88 W AC-1
Mounting support	Plate
Standards	EN 60947-1 EN 60947-4-1 IEC 60947-1 IEC 60947-4-1 JEM 1038
Product certifications	BV CCC CSA DNV GL RINA RMRoS

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Connections - terminals	Control circuit : screw clamp terminals 2 cable(s) 1...2.5 mm ² - cable stiffness: flexible - with cable end Control circuit : screw clamp terminals 1 cable(s) 1...4 mm ² - cable stiffness: flexible - without cable end Control circuit : screw clamp terminals 2 cable(s) 1...4 mm ² - cable stiffness: flexible - without cable end Control circuit : screw clamp terminals 1 cable(s) 1...4 mm ² - cable stiffness: flexible - with cable end Control circuit : screw clamp terminals 1 cable(s) 1...4 mm ² - cable stiffness: solid - without cable end Control circuit : screw clamp terminals 2 cable(s) 1...4 mm ² - cable stiffness: solid - without cable end Power circuit : lugs-ring terminals 2 cable(s) 240 mm ² Power circuit : bar 2 x (40 x 5 mm)
Tightening torque	Power circuit : 35 N.m Control circuit : 1.2 N.m
Operating time	45...60 ms opening 50...60 ms closing
Mechanical durability	10 Mcycles
Operating rate	2400 cyc/h at <= 55 °C

Complementary

Control circuit voltage limits	0.85...1.1 Uc at 55 °C operational 0.2...0.35 Uc at 55 °C drop-out
Inrush power in W	1100 W at 20 °C
Hold-in power consumption in W	6 W at 20 °C
Heat dissipation	6 W

Environment

IP degree of protection	IP20 front face with shrouds (ordered separately) conforming to IEC 60529 IP20 front face with shrouds (ordered separately) 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 in temperature
Mechanical robustness	Vibrations contactor open 2 Gn, 5...300 Hz Vibrations contactor closed 4 Gn, 5...300 Hz Shocks contactor closed 15 Gn for 11 ms Shocks contactor open 9 Gn for 11 ms
Height	238 mm
Width	233 mm
Depth	232 mm
Product weight	11.35 kg

Offer Sustainability

Sustainable offer status	Green Premium product
RoHS	Compliant - since 0843 - Schneider Electric declaration of conformity
REACH	Reference not containing SVHC above the threshold
Product environmental profile	Available
Product end of life instructions	Available