

LC1F780FD

TeSys F contactor - 3P (3 NO) - AC-3 - ≤ 440 V 780 A - coil 110 V DC



Main

Range	TeSys
Product name	TeSys F
Product or component type	Contactors
Device short name	LC1F
Contactors application	Motor control Resistive load
Utilisation category	AC-1 AC-3
Poles description	3P
Power pole contact composition	3 NO
[Ue] rated operational voltage	≤ 460 V DC ≤ 1000 V AC 50/60 Hz
[Ie] rated operational current	780 A (≤ 55 °C) at ≤ 440 V AC AC-3 1600 A (≤ 40 °C) at ≤ 440 V AC AC-1
Motor power kW	220 kW at 220...230 V AC 50/60 Hz 475 kW at 660...690 V AC 50/60 Hz 450 kW at 500 V AC 50/60 Hz 425 kW at 440 V AC 50/60 Hz 425 kW at 415 V AC 50/60 Hz 400 kW at 380...400 V AC 50/60 Hz 450 kW at 1000 V AC 50/60 Hz
Control circuit type	DC standard
Control circuit voltage	110 V DC
[Uimp] rated impulse withstand voltage	8 kV
Overtension category	III
[I _{th}] conventional free air thermal current	1600 A at ≤ 40 °C
I _{rms} rated making capacity	7800 A AC conforming to IEC 60947-4-1
Rated breaking capacity	6240 A conforming to IEC 60947-4-1
[I _{cw}] rated short-time withstand current	2200 A ≤ 40 °C 10 min 4600 A ≤ 40 °C 1 min 5600 A ≤ 40 °C 30 s 6250 A ≤ 40 °C 10 s 3000 A ≤ 40 °C 3 min
Associated fuse rating	800 A aM at ≤ 440 V 1600 A gG at ≤ 440 V
Average impedance	0.1 mΩ at 50 Hz - I _{th} 1600 A
[Ui] rated insulation voltage	1500 V conforming to VDE 0110 group C 1000 V conforming to IEC 60947-4-1
Power dissipation per pole	60 W AC-3 250 W AC-1
Mounting support	Plate
Standards	EN 60947-1 EN 60947-4-1 IEC 60947-1 IEC 60947-4-1 JEM 1038

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Product certifications	BV CCC CSA DNV GL RINA RMRoS UL LROS
Connections - terminals	Power circuit : bar 2 x (100 x 5 mm) Control circuit : screw clamp terminals 2 cable(s) 1...4 mm ² - cable stiffness: solid - without 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...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 - with 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 - without cable end
Tightening torque	Power circuit : 58 N.m Control circuit : 1.2 N.m
Operating time	100...130 ms opening 70...80 ms closing
Mechanical durability	5 Mcycles
Operating rate	600 cyc/h at <= 55 °C

Complementary

Control circuit voltage limits	0.2...0.4 Uc at 55 °C drop-out 0.85...1.1 Uc at 55 °C operational
Inrush power in W	2000 W at 20 °C
Hold-in power consumption in W	42 W at 20 °C
Heat dissipation	42 W

Environment

IP degree of protection	IP20 front face with shrouds (ordered separately) conforming to VDE 0106 IP20 front face with shrouds (ordered separately) conforming to IEC 60529
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	Shocks contactor open 5 Gn for 11 ms Vibrations contactor closed 5.5 Gn, 5...300 Hz Vibrations contactor open 2.5 Gn, 5...300 Hz Shocks contactor closed 15 Gn for 11 ms
Height	434 mm
Width	702 mm
Depth	255 mm
Product weight	39.5 kg

Offer Sustainability

RoHS (date code: YYWW)	Compliant - since 0843 - Schneider Electric declaration of conformity
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