Specifications





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

LC1F780FD

(!) End-of-service on: 04-Nov-2020

① Discontinued

Main

Range	TeSys
Range Of Product	TeSys F
Product Or Component Type	Contactor
Device Short Name	LC1F
Contactor Application	Motor control Resistive load
Utilisation Category	AC-1 AC-4 AC-3
Poles Description	3P
[Ue] Rated Operational Voltage	<= 1000 V AC 50/60 Hz <= 460 V DC
[Uc] Control Circuit Voltage	110 V DC
[le] Rated Operational Current	1600 A (at <40 °C) at <= 440 V AC AC-1 780 A (at <55 °C) at <= 440 V AC AC-3

Complementary

[Uimp] Rated Impulse Withstand Voltage	8 KV
[Ith] Conventional Free Air Thermal Current	1600 A (at 40 °C)
Rated Breaking Capacity	6240 A conforming to IEC 60947-4-1
[Icw] Rated Short-Time Withstand Current	3000 A 40 °C - 3 min 6250 A 40 °C - 10 s 5600 A 40 °C - 30 s 4600 A 40 °C - 1 min 2200 A 40 °C - 10 min
Associated Fuse Rating	1600 A gG at <= 440 V 800 A aM at <= 440 V
Average Impedance	0.1 mOhm - Ith 1600 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	250 W AC-1 60 W AC-3
Overvoltage Category	Ш
Power Pole Contact Composition	3 NO

Power Pole Contact Composition 3 NO

Motor Power Kw	450 kW at 1000 V AC 50/60 Hz (AC-3) 400 kW at 380400 V AC 50/60 Hz (AC-3) 425 kW at 415 V AC 50/60 Hz (AC-3) 425 kW at 440 V AC 50/60 Hz (AC-3) 450 kW at 500 V AC 50/60 Hz (AC-3) 475 kW at 660690 V AC 50/60 Hz (AC-3) 220 kW at 220230 V AC 50/60 Hz (AC-3) 110 kW at 400 V AC 50/60 Hz (AC-4)
Control Circuit Voltage Limits	Operational: 0.851.1 Uc (at 55 °C) Drop-out: 0.20.4 Uc (at 55 °C)
Mechanical Durability	5 Mcycles
Inrush Power In W	2000 W (at 20 °C)
Hold-In Power Consumption In W	42 W at 20 °C
Maximum Operating Rate	600 cyc/h 55 °C
Operating Time	7080 ms closing 100130 ms opening
Connections - Terminals	Control circuit: screw clamp terminals 1 cable(s) 14 mm²flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 14 mm²flexible without cable end Control circuit: screw clamp terminals 1 cable(s) 14 mm²flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 12.5 mm²flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 14 mm²solid without cable end Control circuit: screw clamp terminals 1 cable(s) 14 mm²solid without cable end Control circuit: screw clamp terminals 2 cable(s) 14 mm²solid without cable end Power circuit: bar 2 cable(s) - busbar cross section: 100 x 5 mm Power circuit: bolted connection
Tightening Torque	Control circuit: 1.2 N.m Power circuit: 58 N.m
Mounting Support	Plate
Heat Dissipation	42 W
Motor Power Range	250500 kW at 380440 V 3 phases 110220 kW at 200240 V 3 phases 250500 kW at 480500 V 3 phases
Motor Starter Type	Direct on-line contactor
Contactor Coil Voltage	110 V DC standard
Standards	IEC 60947-1 EN 60947-4-1 JIS C8201-4-1 IEC 60947-4-1 EN 60947-1
Product Certifications	DNV ABS CSA LROS (Lloyds register of shipping) BV UL RINA RMRoS CB
Compatibility Code	LC1F
Control Circuit Type	DC standard

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	тн	
Ambient Air Temperature For Operation	-555 °C	
Ambient Air Temperature For Storage	-6080 °C	

Permissible Ambient Air Temperature Around The Device	-4070 °C
Height	434 mm
Width	702 mm
Depth	255 mm
Operating Altitude	3000 m without derating
Net Weight	39.5 kg

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	44 cm
Package 1 Width	41 cm
Package 1 Length	95 cm
Package 1 Weight	47.59 kg

Contractual warranty

Warranty

18 months

Sustainability Screen Premium

Green PremiumTM label is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO₂ products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >



Transparency RoHS/REACh

Well-being performance

Mercury Free

Rohs Exemption Information Yes

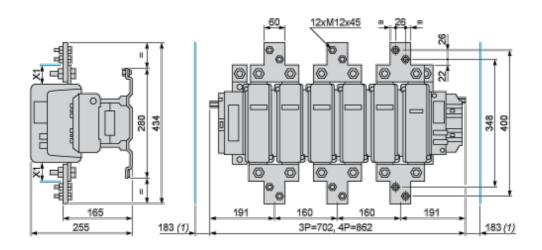
Certifications & Standards

Eu Rohs Directive	Compliant
	EU RoHS Declaration
China Rohs Regulation	China RoHS declaration Product out of China RoHS scope. Substance declaration for your information
Environmental Disclosure	Product Environmental Profile
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Dimensions Drawings

Dimensions and Drawings

LC1 F780

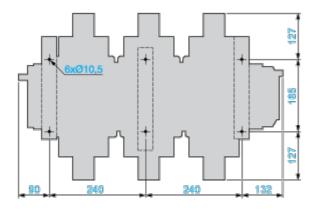


(1) Minimum distance required for coil removal.

NOTE: X1 (mm) = Minimum electrical clearance according to operating voltage and breaking capacity.

Voltage	200500 V	6901000 V
X1 (mm)	30	35

Fixing centers of LC1 F780



Connections and Schema

Connections and Schema

LC1 F780 💊 or ==

LC1F780FD

Motor Starter BOM Motor Starter BOM