

Product data sheet

Specifications



TeSys F contactor - 3P (3 NO) - AC-3 - <= 440 V 780 A - coil 125 V DC

LC1F780GD

⚠ Discontinued on: Oct 10, 2020

⚠ 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-4 AC-3
Poles Description	3P
[Ue] Rated Operational Voltage	<= 1000 V AC 50/60 Hz <= 460 V DC
[Uc] Control Circuit Voltage	125 V DC
[Ie] 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	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	450 kW at 1000 V AC 50/60 Hz (AC-3) 400 kW at 380...400 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 660...690 V AC 50/60 Hz (AC-3) 220 kW at 220...230 V AC 50/60 Hz (AC-3) 110 kW at 400 V AC 50/60 Hz (AC-4)
Control Circuit Voltage Limits	Operational: 0.85...1.1 Uc (at 55 °C) Drop-out: 0.2...0.4 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	70...80 ms closing 100...130 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: 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	250...500 kW at 380...440 V 3 phases 110...220 kW at 200...240 V 3 phases 250...500 kW at 480...500 V 3 phases
Motor Starter Type	Direct on-line contactor
Contactor Coil Voltage	125 V DC standard
Standards	IEC 60947-4-1 EN 60947-1 IEC 60947-1 EN 60947-4-1 JIS C8201-4-1
Product Certifications	LROS (Lloyds register of shipping) RMRoS ABS CSA UL DNV CB BV RINA
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	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	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
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Sustainability

Green Premium™ label is Schneider Electric's commitment to delivering products with best-in-class 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](#)

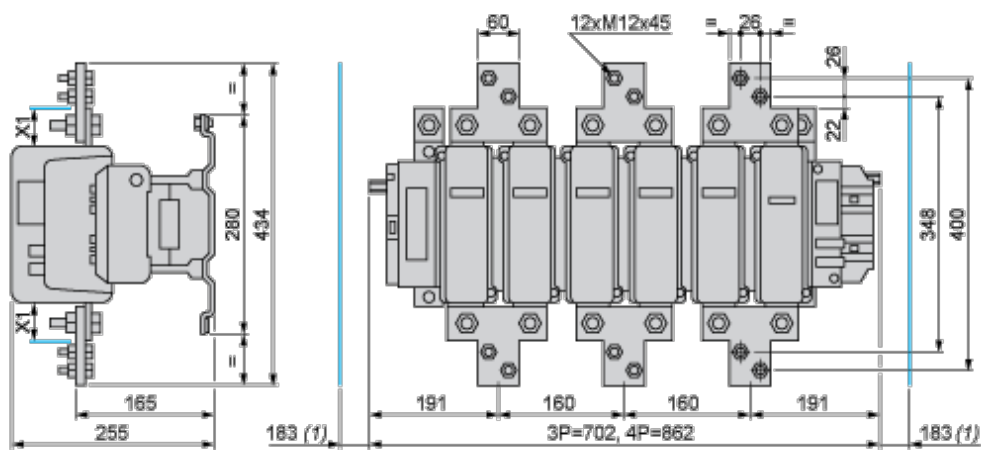
Certifications & Standards

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
California Proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Dimensions Drawings

Dimensions and Drawings

LC1 F780

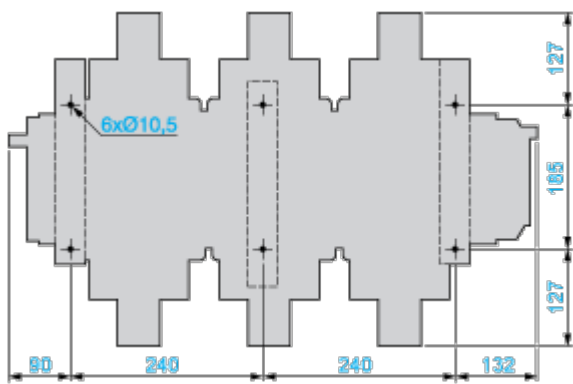


(1) Minimum distance required for coil removal.

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

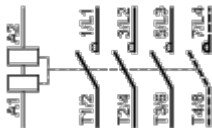
Voltage	200...500 V	690...1000 V
X1 (mm)	30	35

Fixing centers of LC1 F780



Connections and Schema

Connections and Schema



LC1 F780  or 

Motor Starter BOM
Motor Starter BOM