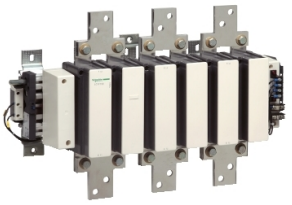
Product data sheet

Specifications

Green Premium™



contactor body withou coil, TeSys F, 3P(3NO), AC-3, <=440V 780A,use with coil LX1/LX9 110â€¦500V AC 40/400Hz, LX4 110...440V DC

LC1F780

Discontinued

Discontinued on: 14/04/2024

Main

Range	TeSys
Product Name	TeSys F
Product Or Component Type	Contactor
Device Short Name	LC1F
Contactor Application	Resistive load Motor control
Utilisation Category	AC-4 AC-3 AC-1
Poles Description	3P
Power Pole Contact Composition	3 NO
[Ue] Rated Operational Voltage	<= 1000 V AC 50/60 Hz <= 460 V DC
[Ie] Rated Operational Current	780 A (at <55 °C) at <= 440 V AC AC-3 1600 A (at <40 °C) at <= 440 V AC AC-1
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) 220 kW at 220...240 V AC 50/60 Hz (AC-3) 475 kW at 660...690 V AC 50/60 Hz (AC-3) 110 kW at 400 V AC 50/60 Hz (AC-4)

Complementary

[Uc] Control Circuit Voltage	110...500 V AC 40...400 Hz with LX1/LX9 coil 48...440 V DC with LX4 coil
[Uimp] Rated Impulse Withstand Voltage	8 kV
Overvoltage Category	III
[Ith] Conventional Free Air Thermal Current	1600 A (at 40 °C)
Irms Rated Making Capacity	7800 A AC conforming to IEC 60947-4-1
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

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

Associated Fuse Rating	800 A aM at <= 440 V 1600 A gG 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	60 W AC-3 250 W AC-1
Control Circuit Voltage Limits	Operational: 0.85...1.1 Uc AC 40...400 Hz with LX1/LX9 coil Drop-out: 0.2...0.4 Uc AC 40...400 Hz with LX1/LX9 coil Operational: 0.85...1.1 Uc DC with LX4 coil Drop-out: 0.2...0.4 Uc DC with LX4 coil
Heat Dissipation	22 W
Operating Time	40...80 ms closing for with LX1/LX9 coil 130...230 ms opening for with LX1/LX9 coil 70...80 ms closing for with LX4 coil 100...130 ms opening for with LX4 coil
Mounting Support	Plate
Standards	IEC 60947-1 IEC 60947-4-1 EN 60947-1 JIS C8201-4-1 EN 60947-4-1
Product Certifications	UL LROS (Lloyds register of shipping) RINA DNV CCC BV CB ABS UKCA
Connections - Terminals	Power circuit: bar 2 cable(s) - busbar cross section: 100 x 5 mm Power circuit: bolted connection 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 with 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 mm²solid without cable end Control circuit: screw clamp terminals 1 cable(s) 1…4 mm² Control circuit: screw clamp terminals 2 cable(s) 1…4 mm²
Tightening Torque	Power circuit: 58 N.m Control circuit: 1.2 N.m
Mechanical Durability	5 Mcycles
Inrush Power In Va	1900…2300 VA, 40...400 Hz cos phi 0.9 (at 20 °C)with LX1/LX9 coil 1960…2420 VA (at 20 °C)with LX4 coil
Hold-In Power Consumption In Va	44…55 VA, 40...400 Hz cos phi 0.9 (at 20 °C)with LX1/LX9 coil 42…52 VA (at 20 °C)with LX4 coil
Maximum Operating Rate	600 cyc/h 55 °C
Compatibility Code	LC1F

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

Operating Altitude	3000 m without derating
Mechanical Robustness	Vibrations contactor open: 2.5 Gn, 5...300 Hz Vibrations contactor closed: 5.5 Gn, 5...300 Hz Shocks contactor open: 5 Gn for 1/2 sine wave (11 ms) Shocks contactor closed: 15 Gn for 1/2 sine wave (11 ms)
Height	434 mm
Width	702 mm
Depth	255 mm
Net Weight	48 kg

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	31.500 cm
Package 1 Width	41.000 cm
Package 1 Length	90.500 cm
Package 1 Weight	41.000 kg
Unit Type Of Package 2	P12
Number Of Units In Package 2	2
Package 2 Height	75.000 cm
Package 2 Width	80.000 cm
Package 2 Length	120.000 cm
Package 2 Weight	100.000 kg

Contractual warranty

Warranty	18 months

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-CO_2 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

Reach Regulation	REACh Declaration
Eu Rohs Directive	Compliant with Exemptions
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
Circularity Profile	End of Life Information