



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-3 AC-1 AC-4
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	1600 A (at ≤ 40 °C) at ≤ 440 V AC AC-1 780 A (at ≤ 55 °C) at ≤ 440 V AC AC-3
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)
[Uc] control circuit voltage	115 V AC 40...400 Hz

Complementary

[Uimp] rated impulse withstand voltage	8 kV
Overvoltage category	III
[Ith] conventional free air thermal current	1600 A (at 40 °C)
Rated breaking capacity	6240 A conforming to IEC 60947-4-1

[I _{cw}] 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 mΩ - I _{th} 1600 A 50 Hz
[U _i] 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
Mounting support	Plate
Standards	IEC 60947-4-1 IEC 60947-1 EN 60947-1 JIS C8201-4-1 EN 60947-4-1
Product certifications	RINA ABS RMRoS BV CB LROS (Lloyds register of shipping) UL DNV CSA
Connections - terminals	Control circuit: screw clamp terminals 1 cable(s) 1...4 mm ² flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm ² flexible without cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm ² flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm ² flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm ² solid without cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm ² solid 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
Control circuit voltage limits	Operational: 0.85...1.1 U _c 40...400 Hz (at 55 °C) Drop-out: 0.2...0.4 U _c 40...400 Hz (at 55 °C)
Inrush power in VA	2100 VA 40...400 Hz cos phi 0.9 (at 20 °C)
Hold-in power consumption in VA	50 VA 40...400 Hz cos phi 0.9 (at 20 °C)
Heat dissipation	44 W
Operating time	40...80 ms closing 130...230 ms opening
Mechanical durability	5 Mcycles
Maximum operating rate	600 cyc/h 55 °C
Compatibility code	LC1F
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	115 V AC 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
Operating altitude	3000 m without

Height	434 mm
Width	702 mm
Depth	255 mm
Net weight	39.5 kg

Offer Sustainability

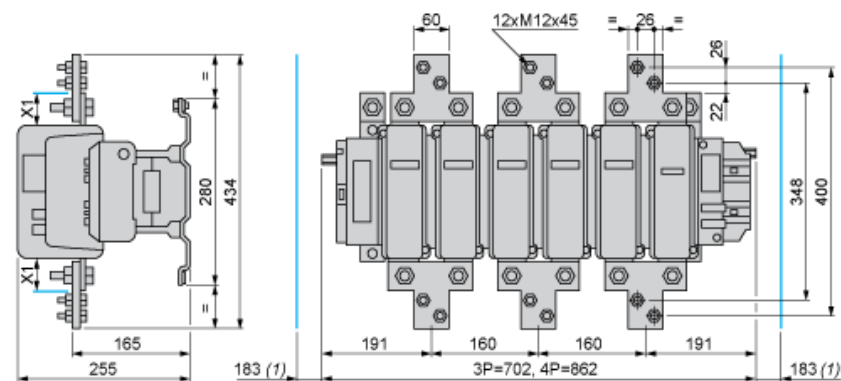
Sustainable offer status	Green Premium product
REACH Regulation	REACH Declaration
EU RoHS Directive	Compliant EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS declaration Product out of China RoHS scope. Substance declaration for your information
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Contractual warranty

Warranty	18 months
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Dimensions and Drawings

LC1 F780

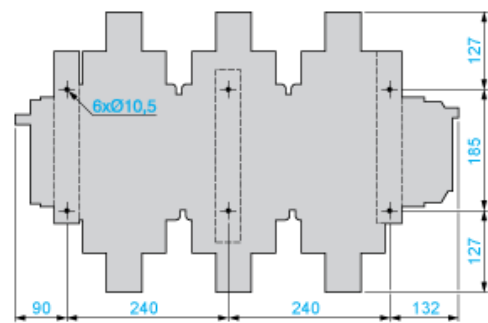


(1) Minimum distance required for coil removal.

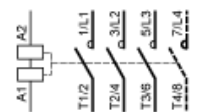
NOTE: X1 (mm) = Minimum electrical clearance according to operating voltage and breaking capacity.

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

Fixing centers of LC1 F780



Connections and Schema



LC1 F780 ~ or ☐