



Main

Range	TeSys
Product name	TeSys F
Product or component type	Star delta starter
Device short name	LC3F
Contactor application	Motor control
Utilisation category	AC-3
Device presentation	Pre-wired
Poles description	3 x 3P
Power pole contact composition	3 x 3 NO
[Ue] rated operational voltage	Power circuit: ≤ 1000 V AC 16 Hz 2/3...200 Hz
[Ie] rated operational current	185 A (at ≤55 °C) at ≤ 440 V AC AC-3 for power circuit
Motor power kW	160 kW at 380/400 V AC 50/60 Hz 160 kW at 415 V AC 50/60 Hz 185 kW at 440 V AC 50/60 Hz 90 kW at 220/230 V AC 50/60 Hz
Control circuit type	AC at 50/60 Hz
[Uc] control circuit voltage	110 V AC 50/60 Hz
Auxiliary contact composition	1 NC for KM1 star contactor 1 NO for KM1 star contactor 2 NC for KM2 line contactor 1 NO for KM2 line contactor 1 NC for KM3 delta contactor 2 NO for KM3 delta contactor
[Uimp] rated impulse withstand voltage	8 kV
[Ui] rated insulation voltage	1000 V conforming to IEC 60947-4-1 1500 V conforming to VDE 0110 group C
Interlocking type	Mechanical
Mounting support	Plate
Standards	IEC 60947-1 EN 60947-4-1 IEC 60947-4-1

Product certifications	RINA CSA LROS (Lloyds register of shipping) CCC DNV RMRoS ABS UL CB
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Complementary

[I _{th}] conventional free air thermal current	275 A 40 °C
I _{rms} rated making capacity	1850 A conforming to IEC 60947-4-1
Rated breaking capacity	1480 A conforming to IEC 60947-4-1
[I _{cw}] rated short-time withstand current	1500 A 40 °C - 10 s 920 A 40 °C - 30 s 740 A 40 °C - 1 min 500 A 40 °C - 3 min 400 A 40 °C - 10 min
Associated fuse rating	315 A gG at ≤ 440 V 200 A aM at ≤ 440 V
Connections - terminals	Power circuit: lugs-ring terminals 1 150 mm ² Power circuit: connector 1 150 mm ² Control circuit: screw clamp terminals 1 1...4 mm ² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 1...2.5 mm ² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1...4 mm ² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 1...4 mm ² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 1...4 mm ² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 1...4 mm ² - cable stiffness: solid without cable end Power circuit: bar 2 - busbar cross section: 25 x 3 mm Power circuit: bolted connection
Connections bolt diameter	M8
Tightening torque	Control circuit: 1.2 N.m Power circuit: 18 N.m
Operating time	20...35 ms closing 7...15 ms opening
Mechanical durability	10 Mcycles
Maximum operating rate	2400 cyc/h 55 °C
Starting time	30 s
Control circuit voltage limits	Operational: 0.85...1.1 U _c at 50/60 Hz (at ≤55 °C) Drop-out: 0.35...0.55 U _c at 50/60 Hz (at ≤55 °C)
Inrush power in VA	805 VA 50 Hz cos phi 0.3 (at 20 °C) 970 VA 60 Hz cos phi 0.3 (at 20 °C)
Hold-in power consumption in VA	55 VA 50 Hz cos phi 0.3 (at 20 °C) 66 VA 60 Hz cos phi 0.3 (at 20 °C)
Heat dissipation	18...24 W
Width	525 mm
Height	110 mm
Depth	235 mm
Net weight	16.625 kg

Environment

IP degree of protection	IP2x front face with shrouds conforming to IEC 60529 IP2x front face with shrouds conforming to VDE 0106
Protective treatment	TH
Ambient air temperature for storage	-60...80 °C
Ambient air temperature for operation	-5...55 °C -40...70 °C at U _c
Operating altitude	3000 m without

Mechanical robustness	Vibrations contactor open: 2 Gn, 5...300 Hz Shocks contactor closed: 15 Gn for 11 ms Vibrations contactor closed: 5 Gn, 5...300 Hz Shocks contactor open: 7 Gn for 11 ms
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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

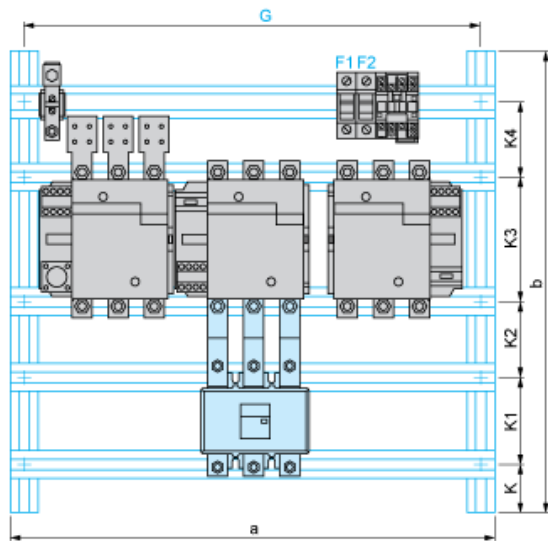
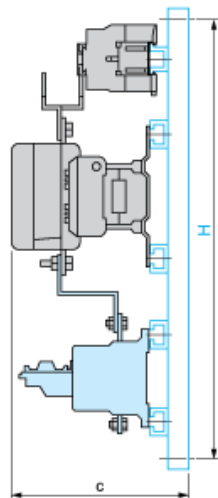
Warranty	18 months
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Dimensions and Drawings

Chassis mounted starters

Pre-assembled: LC3 F185 to LC3 F400

For customer assembly: 2 x LC1 F●●● and 1 x LC1 D150 or 3 x LC1 F●●●



	a	b	c	G	H	K	K1	K2	K3	K4
LC3 F185 or 2 x LC1 F●●● + 1 x LC1 D with components F185	565	675	235	525	625	160	110	80	110	80
LC3 F225 or 3 x LC1 F●●● with components F225	565	675	235	525	625	160	110	80	110	80
LC3 F265 or 3 x LC1 F●●● with components F265	665	775	266	625	725	165	110	100	110	110
LC3 F330 or 3 x LC1 F●●● with components F330	765	975	276	725	825	195	140	100	110	180

	a	b	c	G	H	K	K1	K2	K3	K4
LC3 F400 or 3 x LC1 F●●● with components F400	765	975	276	725	925	195	140	100	180	110