

Product datasheet

Specifications



TeSys F - star delta starter - 3 x 3P (3 NO) - 185 A - 220/230 V AC coil

LC3F185M7

⚠ Discontinued on: 30 Jun 2024

⚠ Discontinued

Main

Range	TeSys
Product name	TeSys F
Product or component type	Star delta starter
Device short name	LC3F
Contact 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	220/230 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	Without start delta mechanical interlock
Mounting support	Plate
Standards	EN 60947-1 EN 60947-4-1 JIS C8201-4-1 IEC 60947-4-1 IEC 60947-1

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

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

[I_{th}] conventional free air thermal current	275 A 40 °C
Irms 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	20 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	16.5 kg

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 storage	-60...80 °C
Ambient air temperature for operation	-5...55 °C -40...70 °C at U _c
Operating altitude	3000 m without derating
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

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	38.0 cm
Package 1 Width	66.0 cm
Package 1 Length	75.0 cm
Package 1 Weight	24.54 kg

Contractual warranty

Warranty (in months)	18
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Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)



Environmental footprint

Total lifecycle Carbon footprint	2 320 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Carbon footprint of the manufacturing phase [A1 to A3]	267 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	3 kg CO2 eq.
Carbon footprint of the installation phase [A5]	1 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	2 025 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	24 kg CO2 eq.

Use Better



Materials and Substances

SCIP Number	B2d4179a-eb65-40a3-a1ef-d9a33060486f
PVC free	Yes

Use Longer



Lifetime extension

Repair	No
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Use Again



Repack and remanufacture

Recyclability potential, in %	91
Take-back	No
WEEE Label	 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

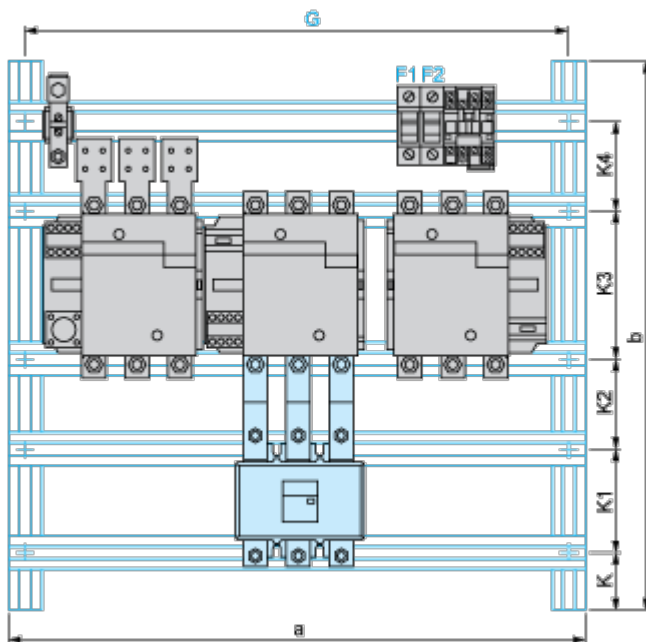
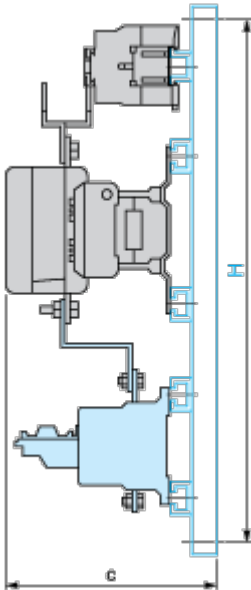
Dimensions Drawings

Dimensions and Drawings

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

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