Product data sheet

Specification





TeSys F - star delta starter - 3 x 3P (3 NO) - 185 A - 240 V AC coil

LC3F185U7

(!) Discontinued

Main

Mairi							
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 2/3200 Hz						
[le] Rated Operational Current	185 A (at <131 °F (55 °C)) at <= 440 V AC AC-3 for power circuit						
Motor Power Kw	160 kW 380/400 V AC 50/60 Hz 160 kW 415 V AC 50/60 Hz 185 kW 440 V AC 50/60 Hz 90 kW 220/230 V AC 50/60 Hz						
Control Circuit Type	AC 50/60 Hz						
[Uc] Control Circuit Voltage	240 V AC 50/60 Hz						
Auxiliary Contact Composition	1 NC KM1 star contactor 1 NO KM1 star contactor 2 NC KM2 line contactor 1 NO KM2 line contactor 1 NC KM3 delta contactor 2 NO KM3 delta contactor						
[Uimp] Rated Impulse Withstand Voltage	8 kV						
[Ui] Rated Insulation Voltage	1000 V IEC 60947-4-1 1500 V VDE 0110 group C						
Interlocking Type	Without start delta mechanical interlock						
Mounting Support	Plate						
Standards	IEC 60947-4-1 EN 60947-1 JIS C8201-4-1 IEC 60947-1 EN 60947-4-1						

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

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

Complementary

[Ith] Conventional Free Air Thermal Current	275 A 104 °F (40 °C)
Irms Rated Making Capacity	1850 A IEC 60947-4-1
Rated Breaking Capacity	1480 A conforming to IEC 60947-4-1
[Icw] Rated Short-Time Withstand Current	1500 A 104 °F (40 °C) - 10 s 920 A 104 °F (40 °C) - 30 s 740 A 104 °F (40 °C) - 1 min 500 A 104 °F (40 °C) - 3 min 400 A 104 °F (40 °C) - 10 min
Associated Fuse Rating	315 A gG <= 440 V 200 A aM <= 440 V
Connections - Terminals	Power circuit: lugs-ring terminals 1 0.23 in² (150 mm²) Power circuit: connector 1 0.23 in² (150 mm²) Control circuit: screw clamp terminals 1 0.000.01 in² (14 mm²) - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 0.000.00 in² (12.5 mm²) - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 0.000.01 in² (14 mm²) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 0.000.01 in² (14 mm²) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 0.000.01 in² (14 mm²) - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 0.000.01 in² (14 mm²) - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 0.000.01 in² (14 mm²) - 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 10.62 lbf.in (1.2 N.m) Power circuit 159.31 lbf.in (18 N.m)
Tightening Torque Operating Time	
	Power circuit 159.31 lbf.in (18 N.m) 2035 ms closing
Operating Time	Power circuit 159.31 lbf.in (18 N.m) 2035 ms closing 715 ms opening
Operating Time Mechanical Durability	Power circuit 159.31 lbf.in (18 N.m) 2035 ms closing 715 ms opening 10 Mcycles
Operating Time Mechanical Durability Maximum Operating Rate	Power circuit 159.31 lbf.in (18 N.m) 2035 ms closing 715 ms opening 10 Mcycles 2400 cyc/h 131 °F (55 °C)
Operating Time Mechanical Durability Maximum Operating Rate Starting Time	Power circuit 159.31 lbf.in (18 N.m) 2035 ms closing 715 ms opening 10 Mcycles 2400 cyc/h 131 °F (55 °C) 20 s Operational: 0.851.1 Uc at 50/60 Hz (at <131 °F (55 °C))
Operating Time Mechanical Durability Maximum Operating Rate Starting Time Control Circuit Voltage Limits	Power circuit 159.31 lbf.in (18 N.m) 2035 ms closing 715 ms opening 10 Mcycles 2400 cyc/h 131 °F (55 °C) 20 s Operational: 0.851.1 Uc at 50/60 Hz (at <131 °F (55 °C)) Drop-out: 0.350.55 Uc at 50/60 Hz (at <131 °F (55 °C)) 805 VA 50 Hz cos phi 0.3 (at 68 °F (20 °C))
Operating Time Mechanical Durability Maximum Operating Rate Starting Time Control Circuit Voltage Limits Inrush Power In Va	Power circuit 159.31 lbf.in (18 N.m) 2035 ms closing 715 ms opening 10 Mcycles 2400 cyc/h 131 °F (55 °C) 20 s Operational: 0.851.1 Uc at 50/60 Hz (at <131 °F (55 °C)) Drop-out: 0.350.55 Uc at 50/60 Hz (at <131 °F (55 °C)) 805 VA 50 Hz cos phi 0.3 (at 68 °F (20 °C)) 970 VA 60 Hz cos phi 0.3 (at 68 °F (20 °C))
Operating Time Mechanical Durability Maximum Operating Rate Starting Time Control Circuit Voltage Limits Inrush Power In Va Hold-In Power Consumption In Va	Power circuit 159.31 lbf.in (18 N.m) 2035 ms closing 715 ms opening 10 Mcycles 2400 cyc/h 131 °F (55 °C) 20 s Operational: 0.851.1 Uc at 50/60 Hz (at <131 °F (55 °C)) Drop-out: 0.350.55 Uc at 50/60 Hz (at <131 °F (55 °C)) 805 VA 50 Hz cos phi 0.3 (at 68 °F (20 °C)) 970 VA 60 Hz cos phi 0.3 (at 68 °F (20 °C)) 55 VA 50 Hz cos phi 0.3 (at 68 °F (20 °C)) 66 VA 60 Hz cos phi 0.3 (at 68 °F (20 °C))
Operating Time Mechanical Durability Maximum Operating Rate Starting Time Control Circuit Voltage Limits Inrush Power In Va Hold-In Power Consumption In Va Heat Dissipation	Power circuit 159.31 lbf.in (18 N.m) 2035 ms closing 715 ms opening 10 Mcycles 2400 cyc/h 131 °F (55 °C) 20 s Operational: 0.851.1 Uc at 50/60 Hz (at <131 °F (55 °C)) Drop-out: 0.350.55 Uc at 50/60 Hz (at <131 °F (55 °C)) 805 VA 50 Hz cos phi 0.3 (at 68 °F (20 °C)) 970 VA 60 Hz cos phi 0.3 (at 68 °F (20 °C)) 55 VA 50 Hz cos phi 0.3 (at 68 °F (20 °C)) 66 VA 60 Hz cos phi 0.3 (at 68 °F (20 °C)) 1824 W
Operating Time Mechanical Durability Maximum Operating Rate Starting Time Control Circuit Voltage Limits Inrush Power In Va Hold-In Power Consumption In Va Heat Dissipation Width	Power circuit 159.31 lbf.in (18 N.m) 2035 ms closing 715 ms opening 10 Mcycles 2400 cyc/h 131 °F (55 °C) 20 s Operational: 0.851.1 Uc at 50/60 Hz (at <131 °F (55 °C)) Drop-out: 0.350.55 Uc at 50/60 Hz (at <131 °F (55 °C)) 805 VA 50 Hz cos phi 0.3 (at 68 °F (20 °C)) 970 VA 60 Hz cos phi 0.3 (at 68 °F (20 °C)) 55 VA 50 Hz cos phi 0.3 (at 68 °F (20 °C)) 66 VA 60 Hz cos phi 0.3 (at 68 °F (20 °C)) 1824 W 20.67 in (525 mm)

Environment

Ip Degree Of Protection	IP2X front face with shrouds IEC 60529 IP2X front face with shrouds VDE 0106						
Protective Treatment	ТН						
Ambient Air Temperature For Storage	-76176 °F (-6080 °C)						
Ambient Air Temperature For Operation	23131 °F (-555 °C) -40158 °F (-4070 °C) at Uc						
Operating Altitude	9842.52 ft (3000 m) without derating						
Mechanical Robustness	Vibrations contactor open2 Gn, 5300 Hz Shocks contactor closed15 Gn for 11 ms Vibrations contactor closed5 Gn, 5300 Hz Shocks contactor open7 Gn for 11 ms						

Ordering and shipping details

Category	18401-WORLD SERVICE PARTS(CTR ACCESS)
Discount Schedule	CP10
Gtin	3389110227703
Returnability	No

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1

Contractual warranty

Warranty 18 months



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Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

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Guide to assess a product's sustainability >





Transparency RoHS/REACh

Well-being performance

	Mercury Free	
	Rohs Exemption Information	Yes
⊘	Pvc Free	

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.
Circularity Profile	End of Life Information

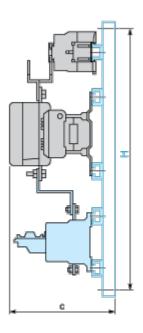
Dimensions Drawings

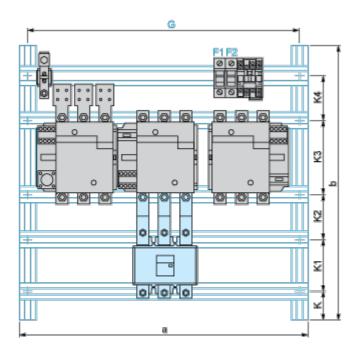
Dimensions and Drawings

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•••





	а	b	С	G	Н	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

Product data sheet

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	а	b	С	G	Н	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

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Motor Starter BOM Motor Starter BOM