

# Product data sheet

Specifications



## TeSys F contactor - 3P (3 NO) - AC-3 - $\leq 440$ V 500 A - coil 120 V AC

LC1F500G7

⚠ Discontinued on: Jun 15, 2023

⚠ Discontinued

Product availability: Stock - Normally stocked in distribution facility

### Main

Range	TeSys
Range of Product	TeSys F
Product or Component Type	Contactor
Device short name	LC1F
contactor application	Motor control Resistive load
Utilisation category	AC-4 AC-1 AC-3
poles description	3P
[Ue] rated operational voltage	$\leq 1000$ V AC 50/60 Hz $\leq 460$ V DC
[Uc] control circuit voltage	120 V AC 40...400 Hz
[Ie] rated operational current	700 A (at $<104$ °F (40 °C)) at $\leq 440$ V AC AC-1 500 A (at $<131$ °F (55 °C)) at $\leq 440$ V AC AC-3

### Complementary

[Uimp] rated impulse withstand voltage	8 kV
[Ith] conventional free air thermal current	700 A (at 104 °F (40 °C))
Rated breaking capacity	4000 A conforming to IEC 60947-4-1
[Icw] rated short-time withstand current	4200 A 104 °F (40 °C) - 10 s 3200 A 104 °F (40 °C) - 30 s 2400 A 104 °F (40 °C) - 1 min 1500 A 104 °F (40 °C) - 3 min 1200 A 104 °F (40 °C) - 10 min
Associated fuse rating	500 A aM at $\leq 440$ V 800 A gG at $\leq 440$ V
Average impedance	0.18 mOhm - Ith 700 A 50 Hz
[Ui] rated insulation voltage	1000 V IEC 60947-4-1 1500 V VDE 0110 group C
Power dissipation per pole	88 W AC-1 45 W AC-3
Overtoltage category	III
power pole contact composition	3 NO

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

<b>Motor power kW</b>	250 kW at 380...400 V AC 50/60 Hz (AC-3) 280 kW at 415 V AC 50/60 Hz (AC-3) 295 kW at 440 V AC 50/60 Hz (AC-3) 355 kW at 500 V AC 50/60 Hz (AC-3) 335 kW at 660...690 V AC 50/60 Hz (AC-3) 335 kW at 1000 V AC 50/60 Hz (AC-3) 147 kW at 220...230 V AC 50/60 Hz (AC-3) 80 kW at 400 V AC 50/60 Hz (AC-4)
<b>Control circuit voltage limits</b>	Operational 0.85...1.1 Uc 40...400 Hz 131 °F (55 °C)) Drop-out 0.3...0.5 Uc 40...400 Hz 131 °F (55 °C))
<b>Mechanical durability</b>	10 Mcycles
<b>Inrush power in VA</b>	1100 VA, 40...400 Hz 0.9 68 °F (20 °C))
<b>Hold-in power consumption in VA</b>	18 VA, 40...400 Hz 0.9 68 °F (20 °C))
<b>Maximum operating rate</b>	2400 cyc/h 131 °F (55 °C)
<b>Operating time</b>	40...65 ms closing 100...170 ms opening
<b>Connections - terminals</b>	Control circuit screw clamp terminals 1 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible without cable end Control circuit screw clamp terminals 2 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible without cable end Control circuit screw clamp terminals 1 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible with cable end Control circuit screw clamp terminals 2 0.002...0.004 in <sup>2</sup> (1...2.5 mm <sup>2</sup> )flexible with cable end Control circuit screw clamp terminals 1 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid without cable end Control circuit screw clamp terminals 2 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid without cable end Power circuit bar 2 40 x 5 mm Power circuit lugs-ring terminals 2 0.4 in <sup>2</sup> (240 mm <sup>2</sup> ) Power circuit bolted connection
<b>Tightening torque</b>	Control circuit 10.6 lbf.in (1.2 N.m) Power circuit 309.8 lbf.in (35 N.m)
<b>Mounting Support</b>	Plate
<b>Heat dissipation</b>	18 W
<b>motor power range</b>	250...500 kW 380...440 V 3 phase 110...220 kW 380...440 V 3 phase 110...220 kW 200...240 V 3 phase 250...500 kW 480...500 V 3 phase
<b>Motor starter type</b>	Direct on-line contactor
<b>Contactor coil voltage</b>	120 V AC standard
<b>Standards</b>	IEC 60947-1 EN 60947-1 JIS C8201-4-1 EN 60947-4-1 IEC 60947-4-1
<b>Product Certifications</b>	UL CSA RINA DNV LROS (Lloyds register of shipping) RMRoS BV ABS CB UKCA
<b>Compatibility code</b>	LC1F
<b>Control circuit type</b>	AC 40...400 Hz

## Environment

<b>IP degree of protection</b>	IP20 front face with shrouds IEC 60529 IP20 front face with shrouds VDE 0106
<b>Protective treatment</b>	TH
<b>Ambient Air Temperature for Operation</b>	23...131 °F (-5...55 °C)
<b>Ambient Air Temperature for Storage</b>	-76...176 °F (-60...80 °C)
<b>Permissible ambient air temperature around the device</b>	-40...158 °F (-40...70 °C)
<b>Height</b>	9.4 in (238 mm)
<b>Width</b>	9.2 in (233 mm)
<b>Depth</b>	9.1 in (232 mm)
<b>Operating altitude</b>	9842.52 ft (3000 m) without derating
<b>Net Weight</b>	25.02 lb(US) (11.35 kg)

## Ordering and shipping details

<b>Category</b>	US10I1222336
<b>Discount Schedule</b>	0112
<b>GTIN</b>	3389110227048
<b>Returnability</b>	Yes
<b>Country of origin</b>	US

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	10.6 in (27.0 cm)
<b>Package 1 Width</b>	11.02 in (28.0 cm)
<b>Package 1 Length</b>	13.4 in (34.0 cm)
<b>Package 1 Weight</b>	25.24 lb(US) (11.45 kg)

## Contractual warranty

<b>Warranty</b>	18 months
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## 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<sub>2</sub> 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.

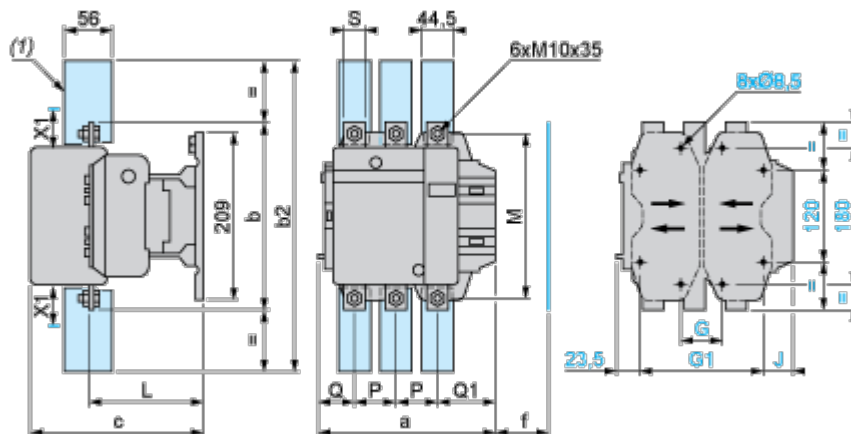
Circularity Profile [End of Life Information](#)

California Proposition 65 WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

Dimensions Drawings

Dimensions and Drawings

LC1 F400 and F500



(1) Power terminal protection shroud

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

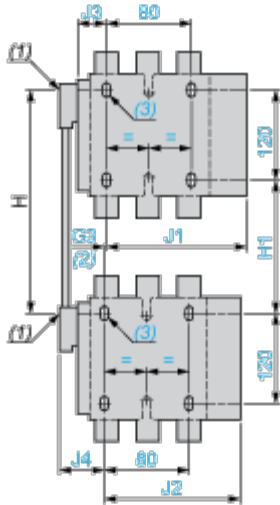
LC1	200...500 V	600...1000 V
F400	15	20
F500	15	20

LC1		a	b	b2	c	f	G supplied	G min.	G max.	G1 supplied	G1 min.	G1 max.	J	L	M	P	Q	Q1
F400	2P	213	206	375	219	146	80	66	102	170	156	192	19.5	145	181	48	69	96
	3P	213	206	375	219	146	80	66	102	170	156	192	19.5	145	181	48	43	74
	4P	261	206	375	219	146	80	66	150	170	156	240	67.5	145	181	48	43	74
F500	2P	233	238	400	232	150	80	66	120	170	156	210	39.5	146	208	55	76	102
	3P	233	238	400	232	150	80	66	120	170	156	210	39.5	146	208	55	46	77
	4P	288	238	400	232	150	140	66	175	230	156	265	34.5	146	208	55	46	77

TeSys F reversing contactors and changeover contactor pairs Vertically mounted

**NOTE:** For customer assembly, with mechanical interlock (MI) LA9 F, fixing recommended on AM1 EC uprights (please consult your Regional Sales Office). 2 x LC1 identical or different ratings (LC1 F115 to F630 and F800).

Assembly A



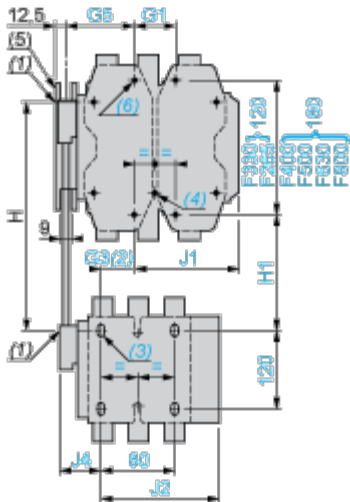
- (1) Mechanical interlock shaft.
- (2) For assembly of contactors of different ratings only.
- (3) 4 x Ø6.5 for LC1 F115 to F225.

Assembly A<sup>(7)</sup> - Mechanical interlock reference

	G3 3P	G3 4P	H min.	H max.	H1 min.	H1 max.	J1 3P	J1 4P
<b>LA9 FF4F</b>	0	0	200	310	80	190	137	155.5
<b>LA9 FG4F</b>	3	4	210	300	90	180	139.5	159.5
<b>LA9 FG4G</b>	0	0	220	310	100	190	139.5	159.5

	J2 3P	J2 4P	J3 3P	J3 4P	J4 3P	J4 4P
<b>LA9 FF4F</b>	137	155.5	48.5	67	48.5	67
<b>LA9 FG4F</b>	137	155.5	53	73	54	69
<b>LA9 FG4G</b>	139.5	159.5	53	73	53	73

Assembly B



- (4) 4 x Ø6.5 for LC1 F265.
- (5) Mechanical interlock guide bracket.

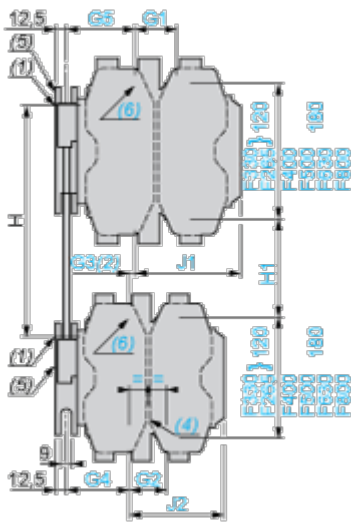
Assembly B<sup>(7)</sup> - Mechanical interlock reference

	G1 3P	G1 4P	G3 3P	G3 4P	G5 3P	G5 4P	H min.	H max.
LA9 FH4F	96	96	21	27	60	83	240	380
LA9 FJ4F	80	80	45	26	83	83	250	380
LA9 FK4F	80	140	45	26	83	83	270	380
LA9 FL4F	180	240	35	17	74	74	310	380
LA9 FH4G	96	96	19	23	60	83	250	380
LA9 FJ4G	80	80	42	22	83	83	250	380
LA9 FK4G	80	140	42	22	83	83	270	380
LA9 FL4G	180	240	33	13	74	74	310	380

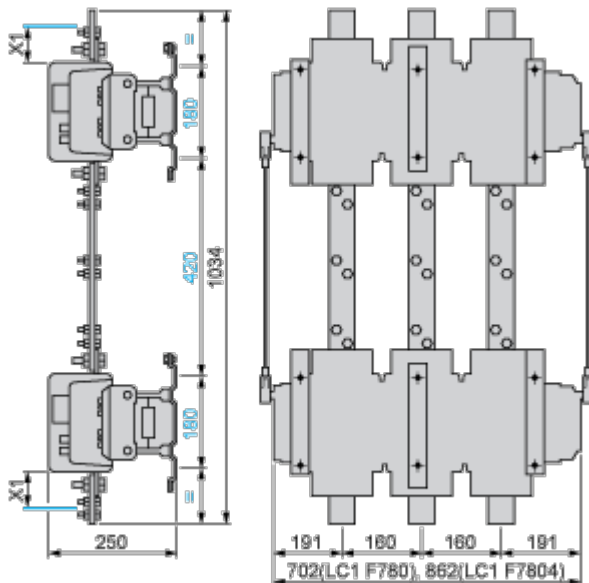
	H1 min.	H1 max.	J1 3P	J1 4P	J2 3P	J2 4P	J4 3P	J4 4P
LA9 FH4F	110	250	157.5	181.5	137	155.5	48.5	67
LA9 FJ4F	80	210	144.5	192.5	137	155.5	48.5	67
LA9 FK4F	100	210	164.5	219.5	137	155.5	48.5	67
LA9 FL4F	140	210	248.5	328.5	137	155.5	48.5	67
LA9 FH4G	120	250	157.5	181.5	139.5	159.5	53	73
LA9 FJ4G	90	220	144.5	192.5	139.5	159.5	53	73
LA9 FK4G	110	220	164.5	219.5	139.5	159.5	53	73

	H1 min.	H1 max.	J1 3P	J1 4P	J2 3P	J2 4P	J4 3P	J4 4P
LA9 FL4G	150	220	248.5	328.5	139.5	159.5	53	73

Assembly C



(6) 4 x Ø8.5 for LC1 F400, F500 or 4 x Ø10.5 for LC1 F630 and F800.



(7) Only 3P for F800.

(8) In this case, G4 is greater than G5.

Assembly C<sup>(7)</sup>

	G1 3P	G1 4P	G2 3P	G2 4P	G3 3P	G3 4P	G4 3P	G4 4P	G5 3P	G5 4P
LA9 FH4H	96	96	96	96	0	0	60	83	60	83
LA9 FJ4H	80	80	96	96	23	0	60	83	83	83
LA9 FK4H	80	140	96	96	23	0	60	83	83	83



	G1 3P	G1 4P	G2 3P	G2 4P	G3 3P	G3 4P	G4 3P	G4 4P	G5 3P	G5 4P
LA9 FL4H	180	240	96	96	14	g <sup>(8)</sup>	60	83	74	74
LA9 FJ4J	80	80	80	80	0	0	83	83	83	83
LA9 FK4J	80	140	80	80	0	0	83	83	83	83
LA9 FL4J	180	240	80	80	g <sup>(8)</sup>	g <sup>(8)</sup>	83	83	74	74
LA9 FK4K	80	140	80	140	0	0	83	83	83	83
LA9 FL4K	180	240	80	140	g <sup>(8)</sup>	g <sup>(8)</sup>	83	83	74	74
LA9 FL4L	180	240	180	240	0	0	74	74	74	74

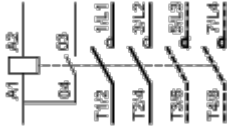
	H min.	H max.	H1 min.	H1 max.	J1 3P	J1 4P	J2 3P	J2 4P
LA9 FH4H	250	380	130	260	157.5	181.5	157.5	181.5
LA9 FJ4H	260	380	110	230	144.5	192.5	157.5	181.5
LA9 FK4H	280	380	130	230	164.5	219.5	157.5	181.5
LA9 FL4H	330	380	170	220	248.5	328.5	157.5	181.5
LA9 FJ4J	260	380	60	200	144.5	192.5	144.5	192.5
LA9 FK4J	280	380	100	200	164.5	219.5	144.5	192.5
LA9 FL4J	325	380	140	195	248.5	329.5	144.5	192.5
LA9 FK4K	300	380	120	200	164.5	329.5	164.5	219.5
LA9 FL4K	345	380	160	195	248.5	328.5	164.5	219.5
LA9 FL4L	380	380	200	200	248.5	328.5	248.5	328.5


Connections and Schema

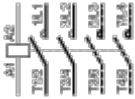
Connections and Schema


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2, 3, and 4-pole Contactors





LC1 F115 to F630, F1250 (coil LX1 F )



LC1 F115 to F630, F1250 (coil LX4 F )

LC1 F115 to F265 (coil LX9 F )

LC1 F800 (coil LX8 F  / )

Motor Starter BOM

Motor Starter BOM