

# Product data sheet

Specifications



contactor, TeSys F, 3P(3NO), AC-3,  
<=440V 1100A with coil LX1/LX9  
48...1000V AC 40/400Hz, LX4  
48...440V DC, LXE 100...250V AC  
50/60Hz or 100...380V DC

LC1F400

## 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	500 A 104 °F (40 °C)) <= 440 V AC AC-1 400 A 131 °F (55 °C)) <= 440 V AC AC-3
Motor power kW	185 kW 1000 V AC 50/60 Hz AC-3) 200 kW 380...400 V AC 50/60 Hz AC-3) 220 kW 415 V AC 50/60 Hz AC-3) 250 kW 440 V AC 50/60 Hz AC-3) 257 kW 500 V AC 50/60 Hz AC-3) 110 kW 220...240 V AC 50/60 Hz AC-3) 280 kW 660...690 V AC 50/60 Hz AC-3) 75 kW 400 V AC 50/60 Hz AC-4)

## Complementary

[Uc] control circuit voltage	48...1000 V AC 40...400 Hz with LX1/LX9 coil 48...440 V DC with LX4 coil 100...250 V AC 50/60 Hz with LXE coil 100...380 V DC with LXE coil
[Uimp] rated impulse withstand voltage	8 kV
Overvoltage category	III
[Ith] conventional free air thermal current	500 A 104 °F (40 °C)
Irms rated making capacity	4000 A AC IEC 60947-4-1
Rated breaking capacity	3200 A IEC 60947-4-1

[Icw] rated short-time withstand current	3600 A 104 °F (40 °C) - 10 s 2400 A 104 °F (40 °C) - 30 s 1700 A 104 °F (40 °C) - 1 min 1200 A 104 °F (40 °C) - 3 min 1000 A 104 °F (40 °C) - 10 min
Associated fuse rating	400 A aM <= 440 V 500 A gG <= 440 V
Average impedance	0.26 mOhm - Ith 500 A 50 Hz
[Ui] rated insulation voltage	1000 V IEC 60947-4-1 1500 V VDE 0110 group C
Power dissipation per pole	65 W AC-1 42 W AC-3
Control circuit voltage limits	Operational: 0.85...1.1 Uc AC 40...400 Hz with LX1/LX9 coil Drop-out: 0.3...0.5 Uc AC 40...400 Hz with LX1/LX9 coil Operational: 0.85...1.1 Uc DC with LX4 coil Drop-out: 0.2...0.35 Uc DC with LX4 coil Operational: 85...275 V AC 50/60 Hz with LXE coil Drop-out: 0...60 V AC 50/60 Hz with LXE coil Operational: 85...418 V DC with LXE coil Drop-out: 0...45 V DC with LXE coil
Heat dissipation	14 W 2.2...5.5 W
Operating time	40...75 ms closing with LX1/LX9 coil 100...170 ms opening with LX1/LX9 coil 50...60 ms closing with LX4 coil 45...60 ms opening with LX4 coil 40...80 ms closing with LXE coil 6...54 ms opening with LXE coil
Mounting Support	Plate
Standards	JIS C8201-4-1 IEC 60947-4-1 IEC 60947-1 EN 60947-4-1 EN 60947-1
Product Certifications	CB ABS DNV RMRoS LROS (Lloyds register of shipping) BV RINA UL CSA UKCA
Connections - terminals	Power circuit bar 2 30 x 5 mm Power circuit lugs-ring terminals 2 0.23 in² (150 mm²) Control circuit screw clamp terminals 1 0.00...0.01 in² (1...4 mm²)flexible without cable end Control circuit screw clamp terminals 2 0.00...0.01 in² (1...4 mm²)flexible with cable end Control circuit screw clamp terminals 1 0.00...0.01 in² (1...4 mm²)flexible with cable end Control circuit screw clamp terminals 2 0.00...0.00 in² (1...2.5 mm²)solid without cable end Control circuit screw clamp terminals 1 0.00...0.01 in² (1...4 mm²) Control circuit screw clamp terminals 2 0.00...0.01 in² (1...4 mm²) Control circuit screw clamp terminals 1.0 0.00...0.00 in² (0.2...2.5 mm²)flexible without cable end Control circuit screw clamp terminals 1.0 0.00...0.00 in² (0.25...2.5 mm²)flexible with cable end Control circuit screw clamp terminals 1.0 0.00...0.00 in² (0.2...2.5 mm²)solid without cable end
Tightening torque	Power circuit 309.78 lbf.in (35 N.m) Control circuit 10.62 lbf.in (1.2 N.m) Control circuit 5.31 lbf.in (0.6 N.m)
Mechanical durability	10 Mcycles
Inrush power in VA	1000...1150 VA, 40...400 Hz cos phi 0.9 (at 68 °F (20 °C))with LX1/LX9 coil 920...1140 VA (at 68 °F (20 °C))with LX4 coil 360...470 VA, 50/60 Hz cos phi 0.5 (at 68 °F (20 °C))with LXE coil 410...450 VA (at 68 °F (20 °C))with LXE coil
Hold-in power consumption in VA	12...18 VA, 40...400 Hz cos phi 0.9 (at 68 °F (20 °C))with LX1/LX9 coil 4...7.5 VA (at 68 °F (20 °C))with LX4 coil 4.5...7.0 VA, 50/60 Hz cos phi 0.5 (at 68 °F (20 °C))with LXE coil 2.5...4.0 VA (at 68 °F (20 °C))with LXE coil
Maximum operating rate	2400 cyc/h 131 °F (55 °C)
Compatibility code	LC1F

Environment

IP degree of protection	IP20 front face with shrouds IEC 60529 IP20 front face with shrouds VDE 0106
Protective treatment	TH
Ambient Air Temperature for Operation	23...131 °F (-5...55 °C)
Ambient Air Temperature for Storage	-76...176 °F (-60...80 °C)
Permissible ambient air temperature around the device	-40...158 °F (-40...70 °C)
Operating altitude	9842.52 ft (3000 m) without derating
Mechanical robustness	Vibrations contactor open1.5 Gn, 5...300 Hz Vibrations contactor closed5 Gn, 5...300 Hz Shocks contactor open6 Gn for 1/2 sine wave (11 ms) Shocks contactor closed15 Gn for 1/2 sine wave (11 ms)
Height	8.11 in (206 mm)
Width	8.39 in (213 mm)
Depth	8.62 in (219 mm)
Product Weight	17.64 lb(US) (8 kg)

Ordering and shipping details

Category	22336-CTR,F-LINE,AC,OPEN,NONREV
Discount Schedule	I12
GTIN	3389110122114
Returnability	Yes
Country of origin	CZ

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	10.24 in (26.000 cm)
Package 1 Width	9.65 in (24.500 cm)
Package 1 Length	12.80 in (32.500 cm)
Package 1 Weight	17.91 lb(US) (8.126 kg)
Unit Type of Package 2	P06
Number of Units in Package 2	10
Package 2 Height	29.53 in (75.000 cm)
Package 2 Width	23.62 in (60.000 cm)
Package 2 Length	31.50 in (80.000 cm)
Package 2 Weight	201.81 lb(US) (91.540 kg)

Offer Sustainability

Sustainable offer status	Green Premium product
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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Compliant






<a href="#">EU RoHS Declaration</a>	
Mercury free	Yes
China RoHS Regulation	<a href="#">China RoHS declaration</a> Product out of China RoHS scope. Substance declaration for your information.
RoHS exemption information	<a href="#">Yes</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End of Life Information</a>
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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### Recommended replacement(s)

LC1F400 may be replaced by any of the following products:

1x		Contactor, high power, TeSys Giga, advanced version, AC-3, <= 440V, 400A, 3 pole/NO, 24-48VAC/DC coil LC1G400BEEA
1x		Contactor, high power, TeSys Giga, advanced version, AC-3, <= 440V, 400A, 3 pole/NO, 48-130VAC/DC coil LC1G400EHEA
1x		Contactor, high power, TeSys Giga, advanced version, 3 pole/NO, AC-3 <=440V 400A, 200-500VAC/DC coil LC1G400LSEA
1x		Contactor, high power, TeSys Giga, standard version, 3 pole/NO, AC-3 <=440V 400A, 48-130VAC/DC coil LC1G400EHEN
1x		Contactor, high power, TeSys Giga, standard version, 3 pole/NO, AC-3 <=440V 400A, 100-250VAC/DC coil LC1G400KUEN