# Product data sheet Characteristics

## LC1F225

contactor, TeSys F, 3P(3NO), AC-3, <=440V 225A with coil LX9, 24...600V AC 40/400Hz, LX4 - 24...460V DC, LXE - 100...250V AC 50/60Hz or 100...380V DC





#### Main

Range	TeSys
Product name	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
Power pole contact composition	3 NO
[Ue] rated operational voltage	<= 690 V AC 50/60 Hz <= 460 V DC
[le] rated operational current	315 A 104 °F (40 °C)) <= 440 V AC-1 225 A 131 °F (55 °C)) <= 440 V AC-3
Motor power kW	110 KW 380400 V AC 50/60 Hz AC-3) 110 KW 415 V AC 50/60 Hz AC-3) 110 KW 440 V AC 50/60 Hz AC-3) 129 KW 500 V AC 50/60 Hz AC-3) 63 KW 220240 V AC 50/60 Hz AC-3) 129 KW 660690 V AC 50/60 Hz AC-3) 40 kW 400 V AC 50/60 Hz AC-4)

#### Complementary

Usl control circuit voltage	24575 V AC 40400 Hz with LX9 coil
[Uc] control circuit voltage	24575 V AC 40400 HZ WITH LX9 COII 24460 V DC with LX4 coil
	100250 V AC 50/60 Hz with LXE coil
	100380 V DC with LXE coil
	100300 V DC WILLI LAE COII
[Uimp] rated impulse withstand voltage	8 kV
Overvoltage category	III
[Ith] conventional free air thermal current	315 A 104 °F (40 °C)
Irms rated making capacity	2250 A IEC 60947-4-1
Rated breaking capacity	1800 A IEC 60947-4-1
[lcw] rated short-time withstand current	1800 A 104 °F (40 °C) - 10 s
	1000 A 104 °F (40 °C) - 30 s
	850 A 104 °F (40 °C) - 1 min
	560 A 104 °F (40 °C) - 3 min
	440 A 104 °F (40 °C) - 10 min
Associated fuse rating	315 A gG <= 440 V
	250 A aM <= 440 V
Average impedance	0.32 mOhm - Ith 315 A 50 Hz
[Ui] rated insulation voltage	1000 V IEC 60947-4-1
	1500 V VDE 0110 group C
Power dissipation per pole	32 W AC-1
	16 W AC-3

Control circuit voltage limits	Operational: 0.851.1 Uc AC 40400 Hz with LX9 coil Drop-out: 0.20.55 Uc AC 40400 Hz with LX9 coil Operational: 0.851.1 Uc DC with LX4 coil Drop-out: 0.150.2 Uc DC with LX4 coil Operational: 85275 V AC 50/60 Hz with LXE coil Drop-out: 060 V AC 50/60 Hz with LXE coil Operational: 85418 V DC with LXE coil Drop-out: 045 V DC with LXE coil
Heat dissipation	89.8 W 2.22.5 W
Operating time	35 ms closing with LX9 coil 130 ms opening with LX9 coil 3040 ms closing with LX4 coil 3050 ms opening with LX4 coil 4080 ms closing with LXE coil 654 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	UL LROS (Lloyds register of shipping) BV CB ABS DNV CSA RMRoS RINA UKCA
Connections - terminals	Power circuit lugs-ring terminals 1 0.29 in² (185 mm²) Power circuit connector 1 0.29 in² (185 mm²) Power circuit bar 2 32 x 4 mm Power circuit bolted connection Control circuit screw clamp terminals 1 0.000.01 in² (14 mm²)flexible without cable end Control circuit screw clamp terminals 2 0.000.01 in² (14 mm²)flexible with cable end Control circuit screw clamp terminals 1 0.000.01 in² (14 mm²)flexible with cable end Control circuit screw clamp terminals 2 0.000.00 in² (12.5 mm²)solid without cable end Control circuit screw clamp terminals 2 0.000.00 in² (14 mm²) Control circuit screw clamp terminals 1 0.000.01 in² (14 mm²) Control circuit screw clamp terminals 2 0.000.01 in² (14 mm²) Control circuit screw clamp terminals 2 0.000.00 in² (0.22.5 mm²)flexible without cable end Control circuit screw clamp terminals 1.0 0.000.00 in² (0.252.5 mm²)flexible with cable end Control circuit screw clamp terminals 1.0 0.000.00 in² (0.252.5 mm²)flexible with cable end Control circuit screw clamp terminals 1.0 0.000.00 in² (0.22.5 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	9501180 VA, 40400 Hz cos phi 0.9 (at 68 °F (20 °C))with LX9 coil 737902 VA (at 68 °F (20 °C))with LX4 coil 280310 VA, 50/60 Hz cos phi 0.5 (at 68 °F (20 °C))with LXE coil 270320 VA (at 68 °F (20 °C))with LXE coil
Hold-in power consumption in VA	8.910.9 VA, 40400 Hz cos phi 0.9 (at 68 °F (20 °C))with LX9 coil 4.135.07 VA (at 68 °F (20 °C))with LX4 coil 4.57.0 VA, 50/60 Hz cos phi 0.5 (at 68 °F (20 °C))with LXE coil 2.54.0 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	23131 °F (-555 °C)
Ambient Air Temperature for Storage	-76176 °F (-6080 °C)
Permissible ambient air temperature around the device	-40158 °F (-4070 °C)
Operating altitude	9842.52 ft (3000 m) without derating
Mechanical robustness	Vibrations contactor open2 Gn, 5300 Hz Vibrations contactor closed5 Gn, 5300 Hz Shocks contactor open7 Gn for 1/2 sine wave (11 ms) Shocks contactor closed15 Gn for 1/2 sine wave (11 ms)
Height	7.76 in (197 mm)
Width	6.63 in (168.5 mm)
Depth	7.13 in (181 mm)
Net Weight	12.24 lb(US) (5.55 kg)

#### Ordering and shipping details

and an analysis of the same	
Category	22336-CTR,F-LINE,AC,OPEN,NONREV
Discount Schedule	l12
GTIN	3389110230871
Returnability	Yes
Country of origin	CZ

### Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	9.06 in (23.000 cm)
Package 1 Width	9.84 in (25.000 cm)
Package 1 Length	11.42 in (29.000 cm)
Package 1 Weight	10.35 lb(US) (4.694 kg)
Unit Type of Package 2	P06
Number of Units in Package 2	12
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	141.10 lb(US) (64.000 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 www.P65Warnings.ca.gov
REACh Regulation	☑ REACh Declaration
EU RoHS Directive	Compliant EEU RoHS Declaration
Mercury free	Yes
China RoHS Regulation	☐ China RoHS Declaration
RoHS exemption information	€Yes
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.
PVC free	Yes

Warranty 18 months