

LC1F225

TeSys F contactor - 3P(3 NO)-AC-3 \leq 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	\leq 690 V AC 50/60 Hz
[Ie] rated operational current	315 A 104 °F (40 °C) \leq 440 V AC-1 225 A 131 °F (55 °C) \leq 440 V AC-3
Motor power kW	110 kW 380...400 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 220...240 V AC 50/60 Hz AC-3) 129 kW 660...690 V AC 50/60 Hz AC-3) 40 kW 400 V AC 50/60 Hz AC-4)

Complementary

[Uc] control circuit voltage	24...575 V AC 40...400 Hz with LX9 coil 24...460 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
[I _{th}] conventional free air thermal current	315 A (at 40 °C)
I _{rms} rated making capacity	2250 A IEC 60947-4-1
Rated breaking capacity	1800 A conforming to IEC 60947-4-1
[I _{cw}] rated short-time withstand current	1800 A 40 °C - 10 s 1000 A 40 °C - 30 s 850 A 40 °C - 1 min 560 A 40 °C - 3 min 440 A 40 °C - 10 min
Associated fuse rating	315 A gG at ≤ 440 V 250 A aM at ≤ 440 V
Average impedance	0.32 mOhm - I _{th} 315 A 50 Hz
[U _i] rated insulation voltage	1000 V conforming to IEC 60947-4-1 1500 V conforming to VDE 0110 group C
Power dissipation per pole	32 W AC-1 16 W AC-3
Control circuit voltage limits	Operational 0.85...1.1 U _c AC 40...400 Hz Drop-out 0.2...0.55 U _c AC 40...400 Hz Operational 0.85...1.1 U _c DC Drop-out 0.15...0.2 U _c DC Operational 85...275 V AC 50/60 Hz Drop-out 0...60 V AC 50/60 Hz Operational 85...418 V DC Drop-out 0...45 V DC
Heat dissipation	8...9.8 W 2.2...2.5 W
Operating time	35 ms closing with LX9 coil 130 ms opening with LX9 coil 30...40 ms closing with LX4 coil 30...50 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	UL LROS (Lloyds register of shipping) BV CB ABS DNV CSA RMRoS RINA
Connections - terminals	Power circuit: lugs-ring terminals 1 cable(s) 185 mm ² Power circuit: connector 1 cable(s) 185 mm ² Power circuit: bar 2 cable(s) - busbar cross section: 32 x 4 mm Power circuit bolted connection Control circuit: screw clamp terminals 1 cable(s) 1...4 mm ² flexible without cable end Control circuit screw clamp terminals 2 0.00...0.01 in ² (1...4 mm ²)flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm ² flexible with cable end Control circuit screw clamp terminals 2 0.00...0.00 in ² (1...2.5 mm ²)solid without cable end Control circuit screw clamp terminals 1 0.00...0.01 in ² (1...4 mm ²) Control circuit screw clamp terminals 2 0.00...0.01 in ² (1...4 mm ²) Control circuit screw clamp terminals 1.0 0.00...0.00 in ² (0.2...2.5 mm ²)flexible without cable end Control circuit screw clamp terminals 1.0 0.00...0.00 in ² (0.25...2.5 mm ²)flexible with cable end Control circuit screw clamp terminals 1.0 0.00...0.00 in ² (0.2...2.5 mm ²)solid without cable end
Tightening torque	Power circuit: 35 N.m Control circuit: 1.2 N.m Control circuit 5.31 lbf.in (0.6 N.m)
Mechanical durability	10 Mcycles
Inrush power in VA	950...1180 VA, 40...400 Hz cos phi 0.9 (at 68 °F (20 °C))with LX9 coil 737...902 VA (at 68 °F (20 °C))with LX4 coil 280...310 VA, 50/60 Hz cos phi 0.5 (at 68 °F (20 °C))with LXE coil

	270...320 VA (at 68 °F (20 °C))with LXE coil
Hold-in power consumption in VA	8.9...10.9 VA 4.13...5.07 VA 4.5...7.0 VA 2.5...4.0 VA
Maximum operating rate	2400 cyc/h 131 °F (55 °C)
Compatibility code	LC1F

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 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...70 °C
Operating altitude	3000 m without derating
Mechanical robustness	Vibrations contactor open: 2 Gn, 5...300 Hz Vibrations contactor closed: 5 Gn, 5...300 Hz Shocks contactor open 7 Gn for 1/2 sine wave (11 ms) Shocks contactor closed 15 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)

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	10.35 lb(US) (4.694 kg)
Package 1 Height	8.27 in (21 cm)
Package 1 width	8.66 in (22 cm)
Package 1 Length	9.13 in (23.2 cm)
Unit Type of Package 2	CAR
Number of Units in Package 2	1
Package 2 Weight	10.35 lb(US) (4.694 kg)
Package 2 Height	9.06 in (23 cm)
Package 2 width	9.84 in (25 cm)
Package 2 Length	11.42 in (29 cm)
Unit Type of Package 3	P06
Number of Units in Package 3	12
Package 3 Weight	141.10 lb(US) (64 kg)
Package 3 Height	31.50 in (80 cm)
Package 3 width	31.50 in (80 cm)
Package 3 Length	23.62 in (60 cm)

Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	REACH Declaration
EU RoHS Directive	Compliant EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS declaration Product out of China RoHS scope. Substance declaration for your information

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

Contractual warranty

Warranty	18 months
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