Product data sheet
Characteristics

LC1F225M7
contactor TeSys LC1-F - 3 poles - 2AC-3 440V 25 A - coil 220 V AC

Main

Range of product	TeSys F
Product or component type	Contactor
Device short name	LC1F
Contactor application	Motor control Resistive load
Utilisation category	AC-1 AC-3
Control circuit type	AC
Coil type	Standard
Poles description	3P
Pole contact composition	3 NO
[Ie] rated operational current	225 A (<= 55 °C) AC AC-3 for power circuit 315 A (<= 40 °C) AC AC-1 for power circuit
Motor power kW	100 kW at 1000 V AC 50/60 Hz 110 kW at 380...400 V AC 50/60 Hz 110 kW at 415 V AC 50/60 Hz 110 kW at 440 V AC 50/60 Hz 129 kW at 500 V AC 50/60 Hz 129 kW at 660...690 V AC 50/60 Hz 63 kW at 220...230 V AC 50/60 Hz
Motor power hp	150 hp at 460/480 V AC 60 Hz conforming to CSA 150 hp at 460/480 V AC 60 Hz conforming to UL 150 hp at 575/600 V AC 60 Hz conforming to CSA 150 hp at 575/600 V AC 60 Hz conforming to UL 60 hp at 200/208 V AC 60 Hz conforming to CSA 60 hp at 200/208 V AC 60 Hz conforming to UL 75 hp at 230/240 V AC 60 Hz conforming to CSA 75 hp at 230/240 V AC 60 Hz conforming to UL
[Uc] control circuit voltage	220 V AC 40...400 Hz
Connections - terminals	Connector power circuit: 1 cable 185 mm² Ring lugs power circuit: 1 cable 185 mm² Control circuit: connector 1 cable 1...4 mm² - cable stiffness: flexible - with cable end Control circuit: connector 1 cable 1...4 mm² - cable stiffness: solid - without cable end Control circuit: connector 2 cable 1...2.5 mm² - cable stiffness: flexible - without cable end Control circuit: connector 2 cable 1...4 mm² - cable stiffness: flexible - with cable end Control circuit: connector 2 cable 1...4 mm² - cable stiffness: solid - without cable end Power circuit: bars 2 - without cable end

Complementary

Coil technology	Without built-in bidirectional peak limiting diode suppressor
Auxiliary contacts type	Type integrated in coil (1 NO)
Auxiliary contact composition	1 NO
Control circuit voltage limits	0.35...0.55 Uc at <= 55 °C drop-out 50 Hz 0.35...0.55 Uc at <= 55 °C drop-out 60 Hz 0.85...1.1 Uc at <= 55 °C operational 50 Hz 0.85...1.1 Uc at <= 55 °C operational 60 Hz
[Ui] rated insulation voltage	1000 V conforming to IEC 60947-1 for power circuit 1500 V conforming to VDE 0110 group C for power circuit
[Uimp] rated impulse withstand voltage	8 kV coil not connected to the power circuit

Mounting support	Plate Rail
Tightening torque	Power circuit: 35 N.m - on bars Power circuit: 35 N.m - on connector - cable 185 mm² Power circuit: 35 N.m - on ring lugs - cable 185 mm² Control circuit: 1.2 N.m - on connector - cable 1...2.5 mm² Control circuit: 1.2 N.m - on connector - cable 1...4 mm²
[Ue] rated operational voltage	<= 1000 V AC 16 Hz 2/3...200 Hz for power circuit
[Ith] conventional free air thermal current	315 A at <= 40 °C for power circuit
Irms rated making capacity	2250 A at <= 1000 V AC for power circuit conforming to IEC 60497-4-1
Rated breaking capacity	1800 A at <= 1000 V for power circuit conforming to IEC 60497-4-1
Permissible short-time rating	1000 A (<= 40 °C) - short time current duration: 30 s - for power circuit 1800 A (<= 40 °C) - short time current duration: 10 s - for power circuit 440 A (<= 40 °C) - short time current duration: 10 min - for power circuit 560 A (<= 40 °C) - short time current duration: 3 min - for power circuit 850 A (<= 40 °C) - short time current duration: 1 min - for power circuit
Associated fuse rating	250 A aM at <= 440 V for power circuit 315 A gG at <= 440 V for power circuit
Average impedance	0.32 mOhm at 50 Hz - Ith 315 A for power circuit
Power dissipation per pole	16 W AC-3 32 W AC-1
Inrush power in VA	805 VA at 20 °C (cos φ 0.3) 970 VA at 20 °C (cos φ 0.3)
Hold-in power consumption in VA	55 VA at 20 °C (cos φ 0.3) 50 Hz 66 VA at 20 °C (cos φ 0.3) 60 Hz
Operating time	20...35 ms on closing 7...15 ms on opening
Mechanical durability	10000000 cycles
Operating rate	2400 cyc/h at <= 55 °C
Height	168.5 mm
Width	197 mm
Depth	181 mm
Product weight	4.75 kg

Environment

Standards	EN 60947-1 EN 60947-4-1 IEC 60947-1 IEC 60947-4-1 JEM 1038
Product certifications	BV CCC CSA DNV (Det Norske Veritas) GL GOST LROS (Lloyds register of shipping) RINA RMR0S UL
IP degree of protection	IP20 front face with cover conforming to IEC 60529 IP20 front face with cover conforming to VDE 0106
Protective treatment	TH
Ambient air temperature for operation	-60...80 °C
Ambient air temperature for storage	-5...55 °C
Permissible ambient air temperature around the device	-40...70 °C at Uc
Operating altitude	3000 m without derating in temperature
Fire resistance	850 °C conforming to IEC 60695-2-1
Shock resistance	15 gn contactor closed 7 gn contactor opened
Vibration resistance	2 gn 5...300 Hz contactor opened 5 gn 5...300 Hz contactor closed
Heat dissipation	18...24 W at 40...400 Hz for control circuit