

LC1F150B5

contactor TeSys LC1-F - 3 poles - AC-3 - 440V
150 A - coil 24 V AC



Main

Range of product	TeSys F
Product or component type	Contacteur
Device short name	LC1F
Contacteur 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	150 A ($\leq 55^{\circ}\text{C}$) AC AC-3 for power circuit 250 A ($\leq 40^{\circ}\text{C}$) AC AC-1 for power circuit
Motor power kW	100 kW at 660...690 V AC 50/60 Hz 40 kW at 220...230 V AC 50/60 Hz 65 kW at 1000 V AC 50/60 Hz 75 kW at 380...400 V AC 50/60 Hz 80 kW at 415 V AC 50/60 Hz 80 kW at 440 V AC 50/60 Hz 90 kW at 500 V AC 50/60 Hz
[Uc] control circuit voltage	24 V AC 50 Hz
Connections - terminals	Connector power circuit: 1 cable 120 mm ² Ring lugs power circuit: 1 cable 120 mm ² Control circuit: connector 1 cable 1...4 mm ² - cable stiffness: flexible - with cable end Control circuit: connector 1 cable 1...4 mm ² - cable stiffness: solid - without cable end Control circuit: connector 2 cable 1...2.5 mm ² - cable stiffness: flexible - without cable end Control circuit: connector 2 cable 1...4 mm ² - cable stiffness: flexible - with cable end Control circuit: connector 2 cable 1...4 mm ² - 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 $\leq 55^{\circ}\text{C}$ drop-out 50 Hz 0.35...0.55 Uc at $\leq 55^{\circ}\text{C}$ drop-out 60 Hz 0.85...1.1 Uc at $\leq 55^{\circ}\text{C}$ operational 50 Hz 0.85...1.1 Uc at $\leq 55^{\circ}\text{C}$ 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: 18 N.m - on bars Power circuit: 18 N.m - on connector - cable 120 mm ² Power circuit: 18 N.m - on ring lugs - cable 120 mm ² Control circuit: 1.2 N.m - on connector - cable 1...2.5 mm ² Control circuit: 1.2 N.m - on connector - cable 1...4 mm ²
[Ue] rated operational voltage	$\leq 1000\text{ V AC } 16\text{ Hz } 2/3\text{...}200\text{ Hz}$ for power circuit

[I _{th}] conventional free air thermal current	250 A at ≤ 40 °C for power circuit
I _{rms} rated making capacity	1500 A at ≤ 1000 V AC for power circuit conforming to IEC 60497-4-1
Rated breaking capacity	1200 A at ≤ 1000 V for power circuit conforming to IEC 60497-4-1
Permissible short-time rating	1200 A (≤ 40 °C) - short time current duration: 10 s - for power circuit 350 A (≤ 40 °C) - short time current duration: 10 min - for power circuit 450 A (≤ 40 °C) - short time current duration: 3 min - for power circuit 600 A (≤ 40 °C) - short time current duration: 1 min - for power circuit 700 A (≤ 40 °C) - short time current duration: 30 s - for power circuit
Associated fuse rating	160 A aM at ≤ 440 V for power circuit 200 A gG at ≤ 440 V for power circuit 250 A gG at ≤ 440 V for power circuit
Average impedance	0.35 mOhm at 50 Hz - I _{th} 250 A for power circuit
Power dissipation per pole	22 W AC-1 8 W AC-3
Inrush power in VA	550 VA at 20 °C (cos φ 0.3) 660 VA at 20 °C (cos φ 0.3)
Hold-in power consumption in VA	45 VA at 20 °C (cos φ 0.3) 50 Hz 55 VA at 20 °C (cos φ 0.3) 60 Hz
Operating time	23...35 ms on closing 5...15 ms on opening
Mechanical durability	10000000 cycles
Operating rate	2400 cyc/h at ≤ 55 °C
Height	163.5 mm
Width	170 mm
Depth	171 mm
Product weight	3.43 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 U _c
Operating altitude	3000 m without derating in temperature
Fire resistance	850 °C conforming to IEC 60695-2-1
Shock resistance	15 gn contactor closed 9 gn contactor opened
Vibration resistance	2 gn 5...300 Hz contactor opened 6 gn 5...300 Hz contactor closed
Heat dissipation	12...16 W at 50 Hz for control circuit