

### 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
[Uc] control circuit voltage	24 V AC 40...400 Hz

### Complementary

Coil technology	Without built-in bidirectional peak limiting diode suppressor
[Ie] rated operational current	265 A ( $\leq 55$ °C) AC AC-3 for power circuit 350 A ( $\leq 40$ °C) AC AC-1 for power circuit
Motor power kW	75 kW at 220...230 V AC 50/60 Hz 132 kW at 380...400 V AC 50/60 Hz 140 kW at 440 V AC 50/60 Hz 140 kW at 415 V AC 50/60 Hz 147 kW at 1000 V AC 50/60 Hz 160 kW at 500 V AC 50/60 Hz 160 kW at 660...690 V AC 50/60 Hz
Motor power hp	60 hp at 200/208 V AC 60 Hz conforming to UL 60 hp at 200/208 V AC 60 Hz conforming to CSA 75 hp at 230/240 V AC 60 Hz conforming to UL 75 hp at 230/240 V AC 60 Hz conforming to CSA 150 hp at 460/480 V AC 60 Hz conforming to UL 150 hp at 460/480 V AC 60 Hz conforming to CSA 200 hp at 575/600 V AC 60 Hz conforming to UL 200 hp at 575/600 V AC 60 Hz conforming to CSA
Auxiliary contacts type	Type integrated in coil
Auxiliary contact composition	1 NO
Control circuit voltage limits	0.35...0.55 U <sub>c</sub> at $\leq 55$ °C drop-out 40...400 Hz 0.85...1.1 U <sub>c</sub> at $\leq 55$ °C operational 40...400 Hz
[Ui] rated insulation voltage	1000 V for power circuit conforming to IEC 60947-1 1500 V for power circuit conforming to VDE 0110 group C
[Uimp] rated impulse withstand voltage	8 kV coil not connected to the power circuit
Mounting support	Plate Rail

Connections - terminals	Control circuit: connector 1 cable 1...4 mm <sup>2</sup> - cable stiffness: flexible - without cable end Control circuit: connector 2 cable 1...4 mm <sup>2</sup> - cable stiffness: flexible - without cable end Control circuit: connector 1 cable 1...4 mm <sup>2</sup> - cable stiffness: flexible - with cable end Control circuit: connector 2 cable 1...2.5 mm <sup>2</sup> - cable stiffness: flexible - with cable end Control circuit: connector 1 cable 1...4 mm <sup>2</sup> - cable stiffness: solid - without cable end Control circuit: connector 2 cable 1...4 mm <sup>2</sup> - cable stiffness: solid - without cable end Power circuit: bars 2 - busbar cross section: 32 x 4 mm Power circuit: ring lugs 1 cable 240 mm <sup>2</sup> Power circuit: connector 1 cable 240 mm <sup>2</sup>
Tightening torque	Control circuit: 1.2 N.m - on connector - cable 1...4 mm <sup>2</sup> Control circuit: 1.2 N.m - on connector - cable 1...2.5 mm <sup>2</sup> Power circuit: 35 N.m - on bars Power circuit: 35 N.m - on connector - cable 240 mm <sup>2</sup> Power circuit: 35 N.m - on ring lugs - cable 240 mm <sup>2</sup>
[Ue] rated operational voltage	<= 1000 V AC 16 Hz 2/3...200 Hz for power circuit
[I <sub>th</sub> ] conventional free air thermal current	350 A at ≤ 40 °C for power circuit
I <sub>rms</sub> rated making capacity	2650 A at <= 1000 V AC for power circuit conforming to IEC 60497-4-1
Rated breaking capacity	2120 A at <= 1000 V for power circuit conforming to IEC 60497-4-1
Associated fuse rating	315 A aM at <= 440 V for power circuit 400 A gG at <= 440 V for power circuit 500 A gG at <= 440 V for power circuit
Average impedance	0.3 mOhm at 50 Hz - I <sub>th</sub> 350 A for power circuit
Power dissipation per pole	21 W AC-3 37 W AC-1
Inrush power in VA	650 VA at 20 °C (cos φ 0.9)
Hold-in power consumption in VA	10 VA at 20 °C (cos φ 0.9) 40...400 Hz
Operating time	40...65 ms on closing 100...170 ms on opening
Mechanical durability	10000000 cycles
Operating rate	2400 cyc/h at ≤ 55 °C
Height	201.5 mm
Width	203 mm
Depth	213 mm
Product weight	7.44 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 VDE 0106 IP20 front face with cover conforming to IEC 60529
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 <sub>c</sub>
Operating altitude	3000 m without derating in temperature
Fire resistance	850 °C conforming to IEC 60695-2-1

Shock resistance	6 gn contactor opened 15 gn contactor closed
Vibration resistance	2 gn 5...300 Hz contactor opened 5 gn 5...300 Hz contactor closed
Heat dissipation	8 W at 40...400 Hz for control circuit
RoHS EUR conformity date	0843
RoHS EUR status	Compliant