

LC1F400FE7

sklopnik TeSys F – 3P (3 NO) – AC-3 – ≤ 440 V
400 A – zavojnica 115 V AC



Glavno

| | |
|--------------------------------|--|
| Range | TeSys |
| Product name | TeSys F |
| Product or component type | Contactora |
| Device short name | LC1F |
| Contactora application | Motor control Resistive load |
| Utilisation category | AC-1 AC-3 AC-4 |
| Poles description | 3P |
| Pole contact composition | 3 NO |
| [Ue] rated operational voltage | ≤ 1000 V AC 50/60 Hz ≤ 460 V DC |
| [Ie] rated operational current | 500 A (≤ 40 °C) at ≤ 440 V AC AC-1 400 A (≤ 55 °C) at ≤ 440 V AC AC-3 |
| Motor power kW | 75 kW at 400 V AC 50/60 Hz AC-4 200 kW at 380...400 V AC 50/60 Hz AC-3 220 kW at 415 V AC 50/60 Hz AC-3 250 kW at 440 V AC 50/60 Hz AC-3 257 kW at 500 V AC 50/60 Hz AC-3 185 kW at 1000 V AC 50/60 Hz AC-3 110 kW at 220...230 V AC 50/60 Hz AC-3 280 kW at 660...690 V AC 50/60 Hz AC-3 |
| [Uc] control circuit voltage | 115 V AC 40...400 Hz |

Komplementarno

| | |
|---|--|
| [Uimp] rated impulse withstand voltage | 8 kV |
| Overvoltage category | III |
| [Ith] conventional free air thermal current | 500 A at ≤ 40 °C |
| Rated breaking capacity | 3200 A conforming to IEC 60947-4-1 |
| [Icw] rated short-time withstand current | 3600 A ≤ 40 °C 10 s 2400 A ≤ 40 °C 30 s 1700 A ≤ 40 °C 1 min 1200 A ≤ 40 °C 3 min 1000 A ≤ 40 °C 10 min |
| Associated fuse rating | 400 A aM at ≤ 440 V 500 A gG at ≤ 440 V |
| Average impedance | 0.26 mOhm at 50 Hz - Ith 500 A |
| [Ui] rated insulation voltage | 1000 V conforming to IEC 60947-4-1 1500 V conforming to VDE 0110 group C |
| Power dissipation per pole | 42 W AC-3 65 W AC-1 |
| Mounting support | Plate |
| Standards | EN 60947-1 EN 60947-4-1 IEC 60947-1 IEC 60947-4-1 JIS C8201-4-1 |
| Product certifications | ABS BV CSA DNV LROS (Lloyds register of shipping) |

Informacije dane u ovoj dokumentaciji sadrže opće opisne i/ili tehničke karakteristike o performansama ovdje sadržanih proizvoda.
Ova dokumentacija nije namijenjena kao zamjena za niti bi se trebala koristiti za određivanje prikladnosti ili pouzdanosti predmetnih proizvoda za konkretne korisničke primjene.
Svaki takav korisnik ili integrator dužan je provesti odgovarajuću i potpunu analizu rizika, procjenu i ispitivanje proizvoda u odnosu na odgovarajuću specifičnu primjenu ili uporabu istog.
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RINA
RMRoS
UL
CB

| | |
|---------------------------------|---|
| Connections - terminals | Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm ² - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm ² - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm ² - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm ² - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm ² - cable stiffness: solid - without cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm ² - cable stiffness: solid - without cable end Power circuit: lugs-ring terminals 2 cable(s) 150 mm ² Power circuit: bolted connection Power circuit: bar 2 x (30 x 5 mm) |
| Tightening torque | Power circuit: 35 N.m Control circuit: 1.2 N.m |
| Control circuit voltage limits | 0.85...1.1 Uc at 55 °C operational 40...400 Hz 0.3...0.5 Uc at 55 °C drop-out 40...400 Hz |
| Inrush power in VA | 1075 VA at 20 °C (cos φ 0.9) 40...400 Hz |
| Hold-in power consumption in VA | 15 VA at 20 °C (cos φ 0.9) 40...400 Hz |
| Heat dissipation | 14 W |
| Operating time | 100...170 ms opening 40...65 ms closing |
| Mechanical durability | 10 Mcycles |
| Operating rate | 2400 cyc/h at ≤ 55 °C |

Okolina

| | |
|---|---|
| IP degree of protection | IP20 front face with shrouds (ordered separately) conforming to IEC 60529 IP20 front face with shrouds (ordered separately) conforming to VDE 0106 |
| protective treatment | TH |
| ambient air temperature for operation | -5...55 °C |
| ambient air temperature for storage | -60...80 °C |
| permissible ambient air temperature around the device | -40...70 °C |
| operating altitude | 3000 m without derating |
| mechanical robustness | Shocks resistance contactor closed 15 Gn for 11 ms Shocks resistance contactor open 6 Gn for 11 ms Vibrations resistance contactor closed 5 Gn, 5...300 Hz Vibrations resistance contactor open 1.5 Gn, 5...300 Hz |
| height | 206 mm |
| width | 213 mm |
| depth | 219 mm |
| product weight | 9.1 kg |

Offer Sustainability

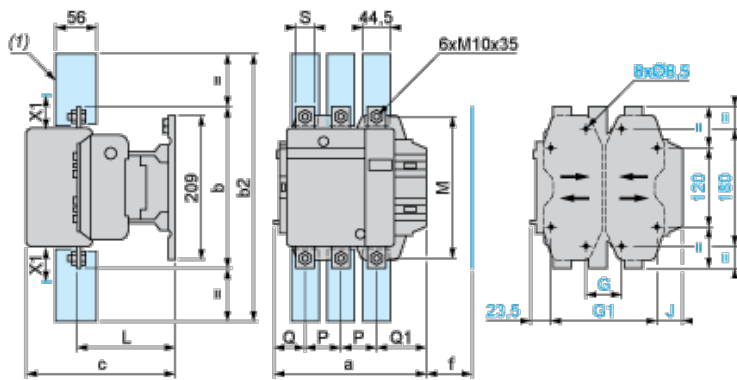
| | |
|---|---|
| Green Premium product | Green Premium product |
| Compliant - since 0843 - Schneider Electric declaration of conformity | Compliant - since 0843 - Schneider Electric declaration of conformity |
| Reference not containing SVHC above the threshold | Reference not containing SVHC above the threshold |
| Available | Available |
| Available | Available |

Contractual warranty

| | |
|-----------------|-----------|
| Warranty period | 18 months |
|-----------------|-----------|

Dimensions and Drawings

LC1 F400 and F500



(1) Power terminal protection shroud

NOTE: X1 (mm) = Minimum electrical clearance according to operating voltage and breaking capacity.

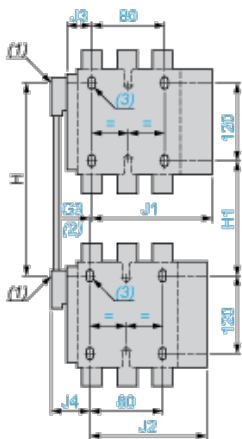
| LC1 | 200...500 V | 600...1000 V |
|------|-------------|--------------|
| F400 | 15 | 20 |
| F500 | 15 | 20 |

| LC1 | | a | b | b2 | c | f | G supplied | G min. | G max. | G1 supplied | G1 min. | G1 max. | J | L | M | P | Q | Q1 | S |
|------|----|-----|-----|-----|-----|-----|------------|--------|--------|-------------|---------|---------|------|-----|-----|----|----|-----|----|
| F400 | 2P | 213 | 206 | 375 | 219 | 146 | 80 | 66 | 102 | 170 | 156 | 192 | 19.5 | 145 | 181 | 48 | 69 | 96 | 25 |
| | 3P | 213 | 206 | 375 | 219 | 146 | 80 | 66 | 102 | 170 | 156 | 192 | 19.5 | 145 | 181 | 48 | 43 | 74 | 25 |
| | 4P | 261 | 206 | 375 | 219 | 146 | 80 | 66 | 150 | 170 | 156 | 240 | 67.5 | 145 | 181 | 48 | 43 | 74 | 25 |
| F500 | 2P | 233 | 238 | 400 | 232 | 150 | 80 | 66 | 120 | 170 | 156 | 210 | 39.5 | 146 | 208 | 55 | 76 | 102 | 30 |
| | 3P | 233 | 238 | 400 | 232 | 150 | 80 | 66 | 120 | 170 | 156 | 210 | 39.5 | 146 | 208 | 55 | 46 | 77 | 30 |
| | 4P | 288 | 238 | 400 | 232 | 150 | 140 | 66 | 175 | 230 | 156 | 265 | 34.5 | 146 | 208 | 55 | 46 | 77 | 30 |

TeSys F reversing contactors and changeover contactor pairs Vertically mounted

NOTE: For customer assembly, with mechanical interlock (MI) LA9 F, fixing recommended on AM1 EC uprights (please consult your Regional Sales Office). 2 x LC1 identical or different ratings (LC1 F115 to F630 and F800).

Assembly A



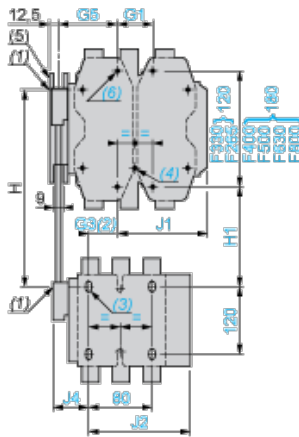
- (1) Mechanical interlock shaft.
- (2) For assembly of contactors of different ratings only.
- (3) 4 x Ø6.5 for LC1 F115 to F225.

Assembly A⁽⁷⁾ - Mechanical interlock reference

| | G3 3P | G3 4P | H min. | H max. | H1 min. | H1 max. | J1 3P | J1 4P |
|----------|-------|-------|--------|--------|---------|---------|-------|-------|
| LA9 FF4F | 0 | 0 | 200 | 310 | 80 | 190 | 137 | 155.5 |
| LA9 FG4F | 3 | 4 | 210 | 300 | 90 | 180 | 139.5 | 159.5 |
| LA9 FG4G | 0 | 0 | 220 | 310 | 100 | 190 | 139.5 | 159.5 |

| | J2 3P | J2 4P | J3 3P | J3 4P | J4 3P | J4 4P |
|----------|-------|-------|-------|-------|-------|-------|
| LA9 FF4F | 137 | 155.5 | 48.5 | 67 | 48.5 | 67 |
| LA9 FG4F | 137 | 155.5 | 53 | 73 | 54 | 69 |
| LA9 FG4G | 139.5 | 159.5 | 53 | 73 | 53 | 73 |

Assembly B



(4) 4 x Ø6.5 for LC1 F265.

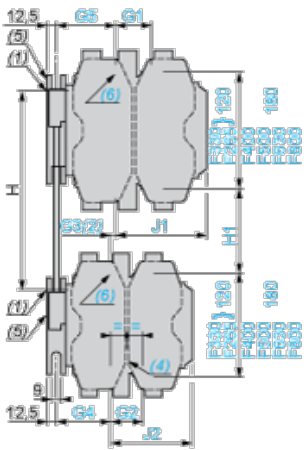
(5) Mechanical interlock guide bracket.

Assembly B⁽⁷⁾ - Mechanical interlock reference

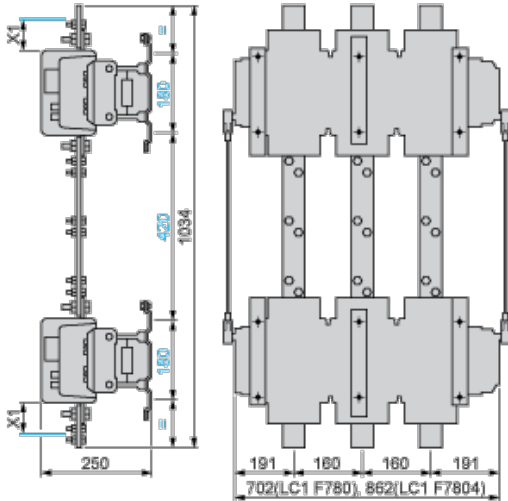
| | G1 3P | G1 4P | G3 3P | G3 4P | G5 3P | G5 4P | H min. | H max. |
|----------|-------|-------|-------|-------|-------|-------|--------|--------|
| LA9 FH4F | 96 | 96 | 21 | 27 | 60 | 83 | 240 | 380 |
| LA9 FJ4F | 80 | 80 | 45 | 26 | 83 | 83 | 250 | 380 |
| LA9 FK4F | 80 | 140 | 45 | 26 | 83 | 83 | 270 | 380 |
| LA9 FL4F | 180 | 240 | 35 | 17 | 74 | 74 | 310 | 380 |
| LA9 FH4G | 96 | 96 | 19 | 23 | 60 | 83 | 250 | 380 |
| LA9 FJ4G | 80 | 80 | 42 | 22 | 83 | 83 | 250 | 380 |
| LA9 FK4G | 80 | 140 | 42 | 22 | 83 | 83 | 270 | 380 |
| LA9 FL4G | 180 | 240 | 33 | 13 | 74 | 74 | 310 | 380 |

| | H1 min. | H1 max. | J1 3P | J1 4P | J2 3P | J2 4P | J4 3P | J4 4P |
|----------|---------|---------|-------|-------|-------|-------|-------|-------|
| LA9 FH4F | 110 | 250 | 157.5 | 181.5 | 137 | 155.5 | 48.5 | 67 |
| LA9 FJ4F | 80 | 210 | 144.5 | 192.5 | 137 | 155.5 | 48.5 | 67 |
| LA9 FK4F | 100 | 210 | 164.5 | 219.5 | 137 | 155.5 | 48.5 | 67 |
| LA9 FL4F | 140 | 210 | 248.5 | 328.5 | 137 | 155.5 | 48.5 | 67 |
| LA9 FH4G | 120 | 250 | 157.5 | 181.5 | 139.5 | 159.5 | 53 | 73 |
| LA9 FJ4G | 90 | 220 | 144.5 | 192.5 | 139.5 | 159.5 | 53 | 73 |
| LA9 FK4G | 110 | 220 | 164.5 | 219.5 | 139.5 | 159.5 | 53 | 73 |
| LA9 FL4G | 150 | 220 | 248.5 | 328.5 | 139.5 | 159.5 | 53 | 73 |

Assembly C



(6) 4 x Ø8.5 for LC1 F400, F500 or 4 x Ø10.5 for LC1 F630 and F800.



(7) Only 3P for F800.

(8) In this case, G4 is greater than G5.

Assembly C⁽⁷⁾

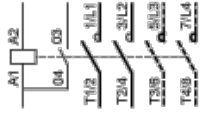
| | G1 3P | G1 4P | G2 3P | G2 4P | G3 3P | G3 4P | G4 3P | G4 4P | G5 3P | G5 4P |
|----------|-------|-------|-------|-------|------------------|------------------|-------|-------|-------|-------|
| LA9 FH4H | 96 | 96 | 96 | 96 | 0 | 0 | 60 | 83 | 60 | 83 |
| LA9 FJ4H | 80 | 80 | 96 | 96 | 23 | 0 | 60 | 83 | 83 | 83 |
| LA9 FK4H | 80 | 140 | 96 | 96 | 23 | 0 | 60 | 83 | 83 | 83 |
| LA9 FL4H | 180 | 240 | 96 | 96 | 14 | 9 ⁽⁸⁾ | 60 | 83 | 74 | 74 |
| LA9 FJ4J | 80 | 80 | 80 | 80 | 0 | 0 | 83 | 83 | 83 | 83 |
| LA9 FK4J | 80 | 140 | 80 | 80 | 0 | 0 | 83 | 83 | 83 | 83 |
| LA9 FL4J | 180 | 240 | 80 | 80 | 9 ⁽⁸⁾ | 9 ⁽⁸⁾ | 83 | 83 | 74 | 74 |
| LA9 FK4K | 80 | 140 | 80 | 140 | 0 | 0 | 83 | 83 | 83 | 83 |
| LA9 FL4K | 180 | 240 | 80 | 140 | 9 ⁽⁸⁾ | 9 ⁽⁸⁾ | 83 | 83 | 74 | 74 |
| LA9 FL4L | 180 | 240 | 180 | 240 | 0 | 0 | 74 | 74 | 74 | 74 |

| | H min. | H max. | H1 min. | H1 max. | J1 3P | J1 4P | J2 3P | J2 4P |
|----------|--------|--------|---------|---------|-------|-------|-------|-------|
| LA9 FH4H | 250 | 380 | 130 | 260 | 157.5 | 181.5 | 157.5 | 181.5 |
| LA9 FJ4H | 260 | 380 | 110 | 230 | 144.5 | 192.5 | 157.5 | 181.5 |
| LA9 FK4H | 280 | 380 | 130 | 230 | 164.5 | 219.5 | 157.5 | 181.5 |
| LA9 FL4H | 330 | 380 | 170 | 220 | 248.5 | 328.5 | 157.5 | 181.5 |
| LA9 FJ4J | 260 | 380 | 60 | 200 | 144.5 | 192.5 | 144.5 | 192.5 |

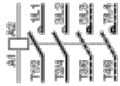
| | | | | | | | | |
|----------|-----|-----|-----|-----|-------|-------|-------|-------|
| LA9 FK4J | 280 | 380 | 100 | 200 | 164.5 | 219.5 | 144.5 | 192.5 |
| LA9 FL4J | 325 | 380 | 140 | 195 | 248.5 | 329.5 | 144.5 | 192.5 |
| LA9 FK4K | 300 | 380 | 120 | 200 | 164.5 | 329.5 | 164.5 | 219.5 |
| LA9 FL4K | 345 | 380 | 160 | 195 | 248.5 | 328.5 | 164.5 | 219.5 |
| LA9 FL4L | 380 | 380 | 200 | 200 | 248.5 | 328.5 | 248.5 | 328.5 |

Connections and Schema

2, 3, and 4-pole Contactors



LC1 F115 to F630, F1250 (coil LX1 F \sim)



LC1 F115 to F630, F1250 (coil LX4 F \equiv)

LC1 F115 to F265 (coil LX9 F \sim)

LC1 F800 (coil LX8 F \sim / \equiv)