

# Product datasheet

Specifications



## TeSys F contactor - 3P (3 NO) - AC-3 - <= 440 V 265 A - coil 24 V DC

LC1F265BD

⚠ Discontinued on: 31 Dec 2023

⚠ Discontinued

### Main

|                                |                                                                                |
|--------------------------------|--------------------------------------------------------------------------------|
| Range                          | TeSys                                                                          |
| Range of product               | TeSys F                                                                        |
| Product or component type      | Contactor                                                                      |
| Device short name              | LC1F                                                                           |
| contactor application          | Resistive load<br>Motor control                                                |
| Utilisation category           | AC-3<br>AC-1<br>AC-4                                                           |
| poles description              | 3P                                                                             |
| [Ue] rated operational voltage | <= 1000 V AC-1<br><= 690 V AC-3<br><= 690 V AC-4<br><= 460 V DC                |
| [Uc] control circuit voltage   | 24 V DC                                                                        |
| [Ie] rated operational current | 350 A (at <40 °C) at <= 440 V AC AC-1<br>265 A (at <55 °C) at <= 440 V AC AC-3 |

### Complementary

|                                             |                                                                                                                  |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| [Uimp] rated impulse withstand voltage      | 8 kV                                                                                                             |
| [Ith] conventional free air thermal current | 350 A (at 40 °C)                                                                                                 |
| Rated breaking capacity                     | 2120 A conforming to IEC 60947-4-1                                                                               |
| [Icw] rated short-time withstand current    | 2200 A 40 °C - 10 s<br>1230 A 40 °C - 30 s<br>950 A 40 °C - 1 min<br>620 A 40 °C - 3 min<br>480 A 40 °C - 10 min |
| Associated fuse rating                      | 315 A aM at <= 440 V<br>400 A gG at <= 440 V                                                                     |
| Average impedance                           | 0.3 mOhm - Ith 350 A 50 Hz                                                                                       |
| [Ui] rated insulation voltage               | 1000 V conforming to IEC 60947-4-1<br>1500 V conforming to VDE 0110 group C                                      |
| Power dissipation per pole                  | 37 W AC-1<br>21 W AC-3                                                                                           |
| Overvoltage category                        | III                                                                                                              |
| power pole contact composition              | 3 NO                                                                                                             |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Motor power kW                 | 132 kW at 380...400 V AC 50/60 Hz (AC-3)<br>140 kW at 415 V AC 50/60 Hz (AC-3)<br>140 kW at 440 V AC 50/60 Hz (AC-3)<br>160 kW at 500 V AC 50/60 Hz (AC-3)<br>160 kW at 660...690 V AC 50/60 Hz (AC-3)<br>147 kW at 1000 V AC 50/60 Hz (AC-3)<br>75 kW at 220...230 V AC 50/60 Hz (AC-3)<br>51 kW at 400 V AC 50/60 Hz (AC-4)                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Control circuit voltage limits | Operational: 0.85...1.1 Uc (at 55 °C)<br>Drop-out: 0.15...0.2 Uc (at 55 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Mechanical durability          | 10 Mcycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Inrush power in W              | 750 W (at 20 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Hold-in power consumption in W | 5 W at 20 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Maximum operating rate         | 2400 cyc/h 55 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Operating time                 | 40...50 ms closing<br>40...65 ms opening                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Connections - terminals        | Control circuit: screw clamp terminals 1 cable(s) 1...4 mm²flexible without cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...4 mm²flexible without cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1...4 mm²flexible with cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm²flexible with cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1...4 mm²solid without cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...4 mm²solid without cable end<br>Power circuit: bar 2 cable(s) - busbar cross section: 32 x 4 mm<br>Power circuit: lugs-ring terminals 1 cable(s) 240 mm²<br>Power circuit: connector 1 cable(s) 240 mm²<br>Power circuit: bolted connection |
| Tightening torque              | Control circuit: 1.2 N.m<br>Power circuit: 35 N.m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Mounting support               | Plate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Heat dissipation               | 5 W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| motor power range              | 55...100 kW at 200...240 V 3 phases<br>110...220 kW at 480...500 V 3 phases<br>110...220 kW at 380...440 V 3 phases                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Motor starter type             | Direct on-line contactor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Contactor coil voltage         | 24 V DC standard                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Standards                      | JIS C8201-4-1<br>IEC 60947-1<br>EN 60947-1<br>IEC 60947-4-1<br>EN 60947-4-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Product certifications         | LROS (Lloyds register of shipping)<br>ABS<br>RINA<br>BV<br>CSA<br>UL<br>RMRoS<br>DNV<br>CB<br>UKCA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Compatibility code             | LC1F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Control circuit type           | DC standard                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

## Environment

|                                       |                                                                                                             |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------|
| IP degree of protection               | IP20 front face with shrouds conforming to IEC 60529<br>IP20 front face with shrouds 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             |
| Height                                                | 203 mm                  |
| Width                                                 | 201.5 mm                |
| Depth                                                 | 213 mm                  |
| Operating altitude                                    | 3000 m without derating |
| Net weight                                            | 7.44 kg                 |

## Packing Units

|                              |         |
|------------------------------|---------|
| Unit Type of Package 1       | PCE     |
| Number of Units in Package 1 | 1       |
| Package 1 Height             | 25.0 cm |
| Package 1 Width              | 25.0 cm |
| Package 1 Length             | 25.1 cm |
| Package 1 Weight             | 8.0 kg  |

## Contractual warranty

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

Sustainability



**Green Premium™ label** is Schneider Electric’s commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

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[Guide to assess a product’s sustainability >](#)



Transparency   RoHS/REACH

## Well-being performance

 Mercury Free

 RoHS Exemption Information   [Yes](#)

 Pvc Free

## Certifications & Standards

Reach Regulation   [REACH Declaration](#)

Eu RoHS Directive   Compliant with Exemptions

China RoHS Regulation   [China RoHS declaration](#)  
Product out of China RoHS scope. Substance declaration for your information

Environmental Disclosure   [Product Environmental Profile](#)

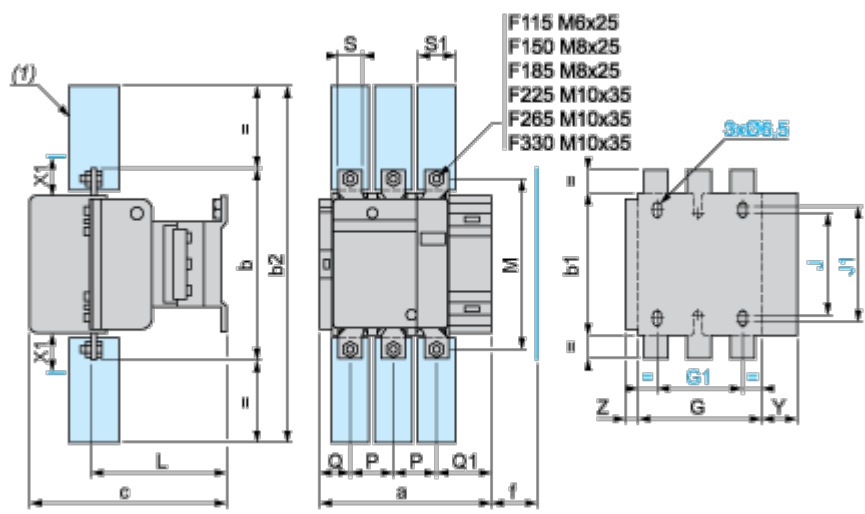
Weee   The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Circularity Profile   [End of Life Information](#)

Dimensions Drawings

Dimensions and Drawings

LC1 F115 to F330



(1) Power terminal protection shroud

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

| LC1        | 200...500 V | 600...1000 V |
|------------|-------------|--------------|
| F115, F150 | 10          | 15           |
| F185       | 10          | 15           |
| F225, F265 | 10          | 15           |
| F330       | 10          | 15           |

| LC1  |    | a     | b   | b1  | b2  | c   | f   | G   | G1 | J   | J1  | L     | M   | P  | Q    | Q1   | S  | S1   | Y |
|------|----|-------|-----|-----|-----|-----|-----|-----|----|-----|-----|-------|-----|----|------|------|----|------|---|
| F115 | 3P | 163.5 | 162 | 137 | 265 | 171 | 131 | 106 | 80 | 106 | 120 | 107   | 147 | 37 | 29.5 | 60   | 20 | 26   | 4 |
|      | 4P | 200.5 | 162 | 137 | 265 | 171 | 131 | 143 | 80 | 106 | 120 | 107   | 147 | 37 | 29.5 | 60   | 20 | 26   | 4 |
| F150 | 3P | 163.5 | 170 | 137 | 301 | 171 | 131 | 106 | 80 | 106 | 120 | 107   | 150 | 40 | 26   | 57.5 | 20 | 34   | 4 |
|      | 4P | 200.5 | 170 | 137 | 301 | 171 | 131 | 143 | 80 | 106 | 120 | 107   | 150 | 40 | 26   | 55.5 | 20 | 34   | 4 |
| F185 | 3P | 168.5 | 174 | 137 | 305 | 181 | 130 | 111 | 80 | 106 | 120 | 113.5 | 154 | 40 | 29   | 59.5 | 20 | 34   | 4 |
|      | 4P | 208.5 | 174 | 137 | 305 | 181 | 130 | 151 | 80 | 106 | 120 | 113.5 | 154 | 40 | 29   | 59.5 | 20 | 34   | 4 |
| F225 | 3P | 168.5 | 197 | 137 | 364 | 181 | 130 | 111 | 80 | 106 | 120 | 113.5 | 172 | 48 | 21   | 51.5 | 25 | 44.5 | 4 |
|      | 4P | 208.5 | 197 | 137 | 364 | 181 | 130 | 151 | 80 | 106 | 120 | 113.5 | 172 | 48 | 17   | 47.5 | 25 | 44.5 | 4 |
| F265 | 3P | 201.5 | 203 | 145 | 375 | 213 | 147 | 142 | 96 | 106 | 120 | 141   | 178 | 48 | 39   | 66.5 | 25 | 44.5 | 3 |

Product datasheet

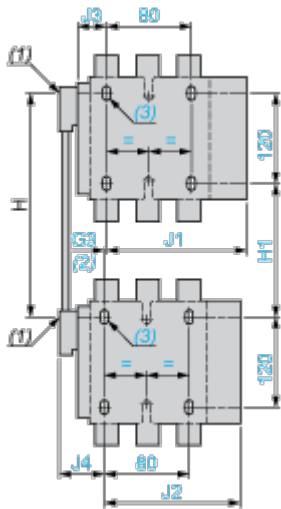
LC1F265BD

| LC1  |    | a     | b   | b1  | b2  | c   | f   | G     | G1 | J   | J1  | L   | M   | P  | Q  | Q1   | S  | S1   | Y |
|------|----|-------|-----|-----|-----|-----|-----|-------|----|-----|-----|-----|-----|----|----|------|----|------|---|
|      | 4P | 244.5 | 203 | 145 | 375 | 213 | 147 | 190   | 96 | 106 | 120 | 141 | 178 | 48 | 34 | 66.5 | 25 | 44.5 | 3 |
| F330 | 3P | 213   | 206 | 145 | 375 | 219 | 147 | 154.5 | 96 | 106 | 120 | 145 | 181 | 48 | 43 | 74   | 25 | 44.5 | 3 |
|      | 4P | 261   | 206 | 145 | 375 | 219 | 147 | 202.5 | 96 | 106 | 120 | 145 | 181 | 48 | 43 | 74   | 25 | 44.5 | 3 |

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<sup>(7)</sup> - 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    |

# LC1F265BD

Technical drawing of the F400/F500/F600/F800 series hydraulic cylinder, showing front and side views with dimensions and callouts.

**Dimensions:**

- Top view: 12.5, G5, G1, 130, 120, 160, 180, 200, 220, 240, 260, 280, 300, 320, 340, 360, 380, 400, 420, 440, 460, 480, 500, 520, 540, 560, 580, 600, 620, 640, 660, 680, 700, 720, 740, 760, 780, 800, 820, 840, 860, 880, 900, 920, 940, 960, 980, 1000.
- Side view: 120, 140, 160, 180, 200, 220, 240, 260, 280, 300, 320, 340, 360, 380, 400, 420, 440, 460, 480, 500, 520, 540, 560, 580, 600, 620, 640, 660, 680, 700, 720, 740, 760, 780, 800, 820, 840, 860, 880, 900, 920, 940, 960, 980, 1000.

**Callouts:**

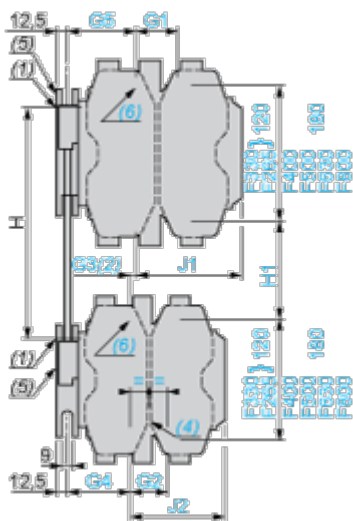
- (1) Port connection detail.
- (2) Port connection detail.
- (3) Port connection detail.
- (4) Port connection detail.
- (5) Port connection detail.
- (6) Port connection detail.

- ### Assembly B<sup>(7)</sup> - Mechanical interlock reference

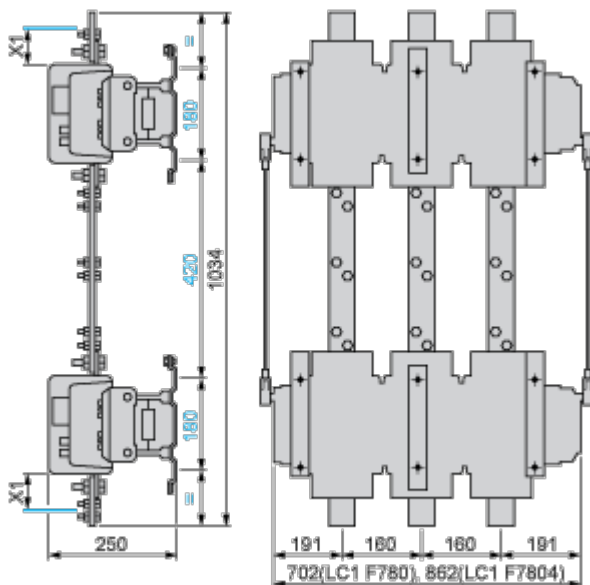
|          | H1 min. | H1 max. | J1 3P | J1 4P | J2 3P | J2 4P | J4 3P | J4 4P |
|----------|---------|---------|-------|-------|-------|-------|-------|-------|
| LA9 FH4F | 110     | 250     | 157.5 | 181.5 | 137   | 155.5 | 48.5  | 67    |
| LA9 FJ4F | 80      | 210     | 144.5 | 192.5 | 137   | 155.5 | 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    |

|                 | H1 min. | H1 max. | J1 3P | J1 4P | J2 3P | J2 4P | J4 3P | J4 4P |
|-----------------|---------|---------|-------|-------|-------|-------|-------|-------|
| <b>LA9 FL4G</b> | 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<sup>(7)</sup>

| Assembly C      | G1 3P | G1 4P | G2 3P | G2 4P | G3 3P | G3 4P | G4 3P | G4 4P | G5 3P | G5 4P |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>LA9 FH4H</b> | 96    | 96    | 96    | 96    | 0     | 0     | 60    | 83    | 60    | 83    |
| <b>LA9 FJ4H</b> | 80    | 80    | 96    | 96    | 23    | 0     | 60    | 83    | 83    | 83    |
| <b>LA9 FK4H</b> | 80    | 140   | 96    | 96    | 23    | 0     | 60    | 83    | 83    | 83    |

Product datasheet

LC1F265BD

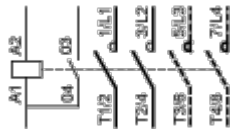
|          | G1 3P | G1 4P | G2 3P | G2 4P | G3 3P            | G3 4P            | G4 3P | G4 4P | G5 3P | G5 4P |
|----------|-------|-------|-------|-------|------------------|------------------|-------|-------|-------|-------|
| LA9 FL4H | 180   | 240   | 96    | 96    | 14               | g <sup>(8)</sup> | 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    | g <sup>(8)</sup> | g <sup>(8)</sup> | 83    | 83    | 74    | 74    |
| LA9 FK4K | 80    | 140   | 80    | 140   | 0                | 0                | 83    | 83    | 83    | 83    |
| LA9 FL4K | 180   | 240   | 80    | 140   | g <sup>(8)</sup> | g <sup>(8)</sup> | 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 |

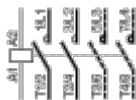
Connections and Schema

Connections and Schema

2, 3, and 4-pole Contactors



LC1 F115 to F630, F1250(coil LX1 F )



LC1 F115 to F630 , F1250 (coil LX4 F )

LC1 F115 to F265 (coil LX9 F )

LC1 F800 (coil LX8 F  / )