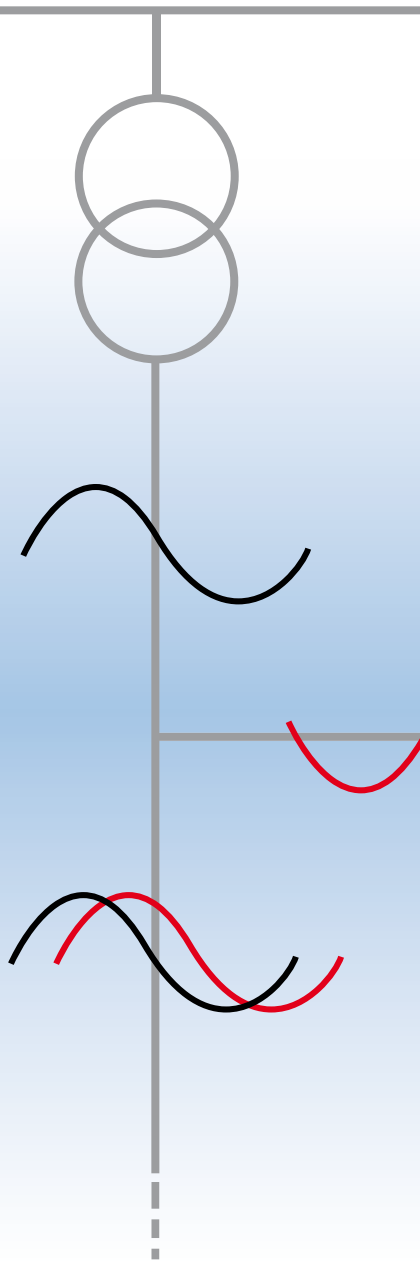


Power Factor Correction Capacitors Type LKT



Power Factor Correction



It's all about saving your money!

Power Factor Correction Capacitors

Type LKT



// Features that matter

- Overcurrent up to 2.2 times rated current
- Inrush current up to 300 times rated current
- Self-healing type, segmented film technology, plus overpressure disconnecter
- Environmental friendly, dry type
- CO₂ emission reduction
- Safes energy costs

// General Remarks

FRAKO Power Factor Correction Capacitors are produced in unique advanced technology and incorporate a triple safety feature. **FRAKO** is the first capacitor manufacturer who succeeded to combine self-healing capacitor film with segmented film and overpressure disconnection. This manufacturing technique guarantees significantly improved operational reliability of capacitors on power factor correction. We reserve the right to make alterations which are based on newly acquired knowledge or which contribute to an improvement in our products.

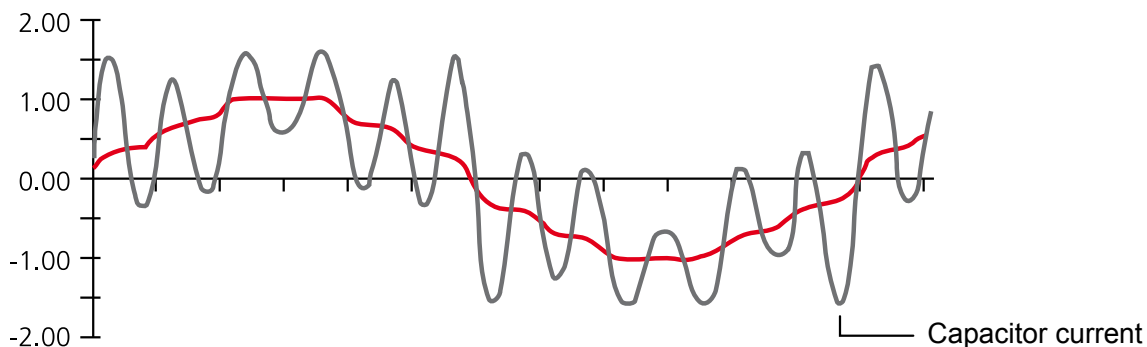
// Technical Remarks

For the operation of Power Factor Correction Capacitors three aspects are of utmost importance:

- High overload capacity
- Long life expectancy
- Safe reaction at overload

// Overload Capacity

In networks where the pollution with harmonics is permanently increasing, surplus loads in capacitors have to be reckoned with. Apart from the higher voltage load it is especially the higher effective current during network resonances, that can considerably further stress the capacitors:



Power Factor Correction Capacitors

Type LKT



If, for example, the 11th harmonic is present with 8 % of the rated network voltage, the r.m.s. value of the rated voltage is only increased by some 0.3 %, but the current in the capacitors will exceed its rated value by 33 %. It becomes clear that the ability of a capacitor to withstand excessive current is significantly greater than the ability to withstand excessive voltage.

Therefore **FRAKO** designs its capacitors as follows:

- **Max. overcurrent up to 2.2 times rated current**
- **Max. inrush current up to 300 times rated current**

/ Life Expectancy

The use of thoroughly tested material as well as careful processing ensures quality and a long life expectancy of the products. **FRAKO** produces its capacitors according to own specifications, which surpass by far the requirements of EN 60831-1/2. Quality tests following each single manufacturing step, verify an outstanding manufacturing quality. Combined with a unique capacitor manufacturing technology, **FRAKO** achieves a worldwide leading durability.

For example, the consistently low power loss over many years is achieved by using a special mineral filler and stabilizer which can avoid permanent partial discharges within the dielectric. Vacuum drying and temperature storage over several days avoid oxygen inclusion, which would accelerate the aging process of a capacitor. This means an extra effort in our production which, however, pays-off with a longer life expectancy.

/ Safety Features

FRAKO Power Factor Correction Capacitors operate with triple safety:

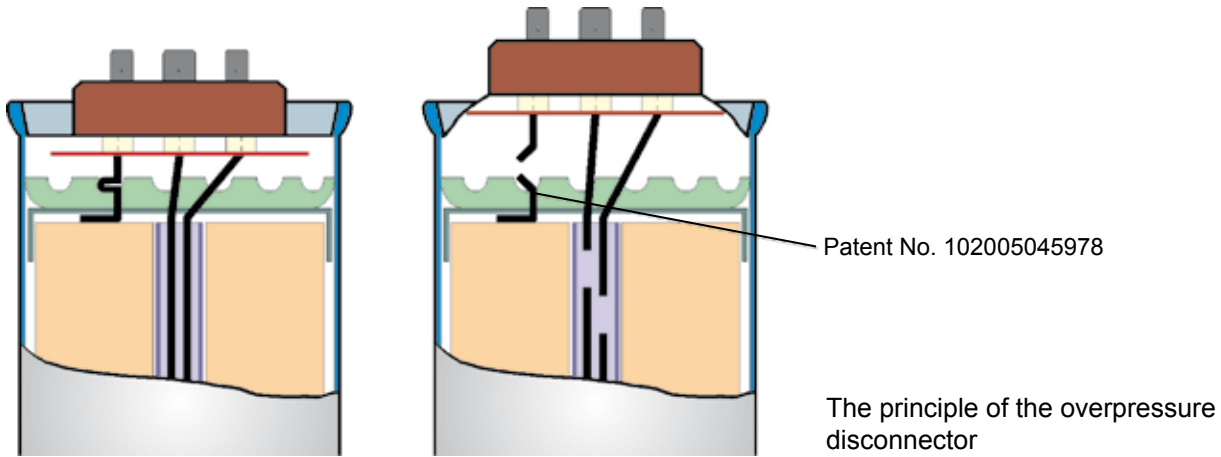
- Self-healing at over-voltage
- Reliable in operation because of segmented film
- An overpressure disconnecter disconnects the capacitors from the mains at the end of their lifetime or at dangerous overload



Self-healing segmented capacitor film

Power Factor Correction Capacitors

Type LKT



To verify the correct functioning of the integrated safety systems, **FRAKO** regularly draws sample capacitors from the production line. A constantly outstanding quality can be achieved and maintained only this way.

/ Voltage Load Capacity

FRAKO Power Factor Correction Capacitors have a load capacity in accordance with EN 60831-1 and -2 as well as IEC 831-1 and -2.

| Rated voltage | 300 VAC | 400 VAC | 440 VAC | 480 VAC | 525 VAC | 610 VAC |
|---------------|---------|---------|---------|---------|---------|---------|
| 8 hours daily | 330 VAC | 440 VAC | 484 VAC | 528 VAC | 578 VAC | 671 VAC |
| 30 min. daily | 345 VAC | 460 VAC | 506 VAC | 552 VAC | 604 VAC | 702 VAC |
| 5 min. | 360 VAC | 480 VAC | 528 VAC | 576 VAC | 630 VAC | 732 VAC |
| 1 min. | 390 VAC | 520 VAC | 572 VAC | 624 VAC | 683 VAC | 794 VAC |

/ Application

FRAKO manufactures three series of Power Factor Correction Capacitors: Basic, Standard and Premium. We recommend Basic Capacitors for standard automatic Power Factor Correction Systems without detuning and for fixed capacitors. Standard capacitors are recommended for automatic detuned Power Factor Correction Systems and fixed capacitors. Premium capacitors should be used for tuned and detuned filter circuits and for dynamic Power Factor Correction Systems. All three series of capacitors are of excellent **FRAKO** quality. **FRAKO** holds the Management System Certificate **ISO 9001** and the Environmental Management System **ISO 14001**.

/ Mechanical Construction

Cylindrical aluminium case with mounting stud M12 x 12, low loss self-healing dielectric made from segmented metallized polypropylene film. Filled with a PCB-free, flame inhibiting, mineral filler with adhesive stabilizer and integrated mechanical overpressure disconnector. Permanently connected external discharge resistors at the terminals. The connecting terminal, which is available as an accessory, protects against direct contact of the fast-on terminals and meets the protection class IP 20.

Power Factor Correction Capacitors

Type LKT



// Design

FRAKO Power Factor Correction Capacitors are available as three-phase capacitors in 3 versions: Basic, Standard and Premium. The single-phase capacitors are available as Standard version.

// Rating

1.1 - 30 kvar; 300 - 610V; 50/60 Hz (higher voltages on request!)

// Capacitance and Rating Tolerance

+/- 5%

// Power Loss

Approx. 0.5Watt/kvar measured at the connecting terminal including discharge resistors.

Approx. 0.2Watt/kvar measured at the capacitor coils.

// Temperature Class

up to -40°C; +65°C

// Discharging

According to EN 60831, every Power Factor Correction Capacitor must have a discharge device which guarantees a discharge to 75V within 3 minutes as a protection against electric shock. All **FRAKO** capacitors have integrated discharge resistors which guarantee a discharge below 50V within one minute.

// Accessories for Power Factor Correction Capacitors

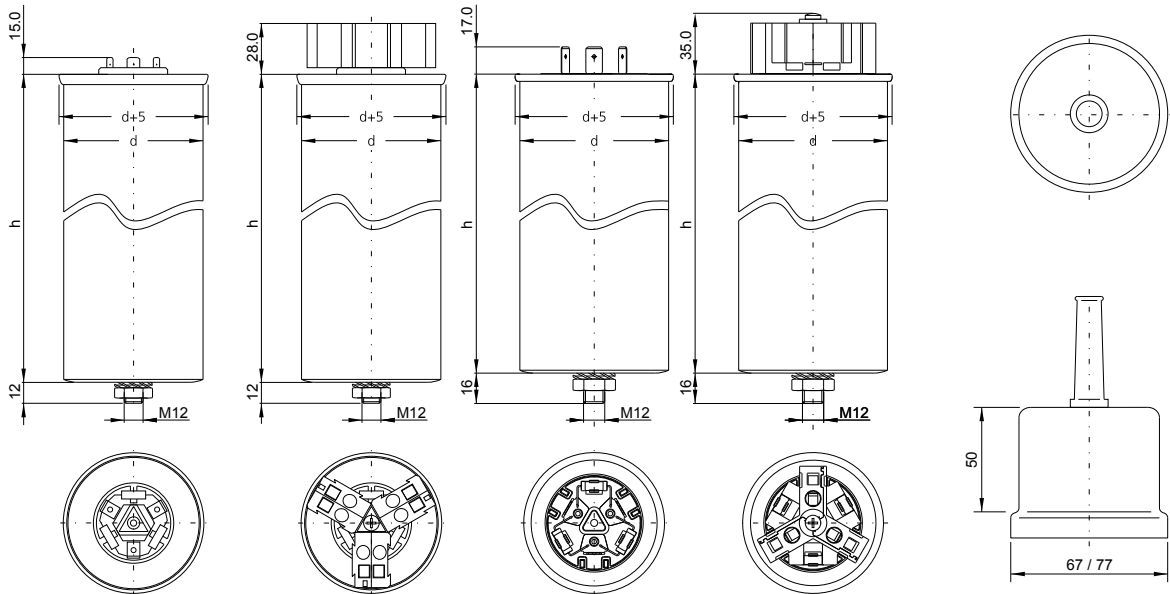
| Article-No. | Description | Type |
|-------------|--|----------|
| 31-08000 | Plug-in type connecting terminal for capacitors with \varnothing 60 mm and \varnothing 70 mm, three-phase | AKD 25/3 |
| 31-08002 | Plug-in type connecting terminal for capacitors with \varnothing 60 mm and \varnothing 70 mm, single-phase | AKD 25/2 |
| 31-08003 | Plug-in type connecting terminal for capacitors with \varnothing 85 mm, three-phase | AKD 30/3 |
| 69-00352 | Plastic caps for LKT with \varnothing 60 mm | LKK 60 |
| 69-00350 | Plastic caps for LKT with \varnothing 70 mm | LKK 70 |
| 69-00353 | Rubber sleeve | LKK |

Power Factor Correction Capacitors

Type LKT



// Dimensions



capacitors with
d = 60/70 mm

for connection with
flat cable plug
6.3 × 0.8 mm

capacitors with
d = 60/70 mm

spring tension
terminal 2 × 6 mm²
Art.-No. 31-08000

capacitors with
d = 85 mm

for connection with
flat cable plug
9.5 × 1.2 mm

capacitors with
d = 85 mm

spring tension
terminal 16 mm²
Art.-No. 31-08003

plastic cap for
capacitors with
d = 60 mm
Art.No. 69-00352
d = 70 mm
Art.No. 69-00350

rubber sleeve
Art.-No. 69-00353

(not available for
capacitors with
d = 85 mm)

Power Factor Correction Capacitors

Type LKT



Technical Data

| Technical Data | Basic Capacitor | Standard Capacitor | Premium Capacitor operated with DL-specification | Premium Capacitor operated with DP-specification |
|---------------------------------------|---|--|---|--|
| Type | LKT...-DB | LKT...-DP | LKT...-DL | LKT...-DL |
| Rated reactive power | 1.7 - 30 kvar | 1.1 - 30 kvar | 1.4 - 20 kvar | 1.4 - 24.2 kvar |
| Rated voltage | 230 - 525 V | 230 - 525 V | 400 - 525 V | 400 - 610 V |
| Rated frequency | 50 - 60 Hz | 50 - 60 Hz | 50 - 60 Hz | 50 - 60 Hz |
| Max. overcurrent | $1.5 \times I_N$ (at rated voltage, 50 Hz) | $1.8 \times I_N$ (at rated voltage, 50 Hz) | $2.2 \times I_N$ (at rated voltage, 50 Hz) | $2.0 \times I_N$ (at rated voltage, 50 Hz) |
| Max. inrush current | $200 \times I_N$ (at rated voltage, 50 Hz) | $250 \times I_N$ (at rated voltage, 50 Hz) | $300 \times I_N$ (at rated voltage, 50 Hz) | $300 \times I_N$ (at rated voltage, 50 Hz) |
| Temperature class | -25/D | -40/+60°C continuous | -40/+65°C continuous | -40/+60°C continuous |
| Max./min. temperature | +55°C/-25°C | +60°C/-40°C | +65°C/-40°C | +60°C/-40°C |
| Max. case temperature | +70°C | +75°C | +78°C | +75°C |
| Test voltage terminal/terminal | $2.15 \times U_N$ for 2 sec. $1.85 \times U_N$ for 18 sec. | $2.15 \times U_N$ for 2 sec. $1.85 \times U_N$ for 18 sec. | $2.15 \times U_N$ for 2 sec. $1.85 \times U_N$ for 18 sec. | $2.15 \times U_N$ for 2 sec. $1.85 \times U_N$ for 18 sec. |
| Test voltage terminal/case | 3,900 V, 2 sec. | 3,900 V, 2 sec. | 3,900 V, 2 sec. | 3,900 V, 2 sec. |
| Isolation level | 3/8 kV | 3/8 kV | 3/8 kV | 3/8 kV |
| Mean Life expectancy | 100,000 h | 130,000 h | 170,000 h | 130,000 h |
| Max. humidity | 95% | 95% | 95% | 95% |
| Max. altitude | 4,000 m | 4,000 m | 4,000 m | 4,000 m |
| Number of annual switching operations | 20,000 | 40,000 | 60,000 | 60,000 |
| Discharging level in 60 sec. | ≤50 V | ≤50 V | ≤50 V | ≤50 V |
| Recommended for | Networks with low harmonic content and normal ambient temperature | Networks with higher harmonic levels and/or high ambient temperature | Demanding networks (i. e. very high harmonic levels and/or very high ambient temperature) | Networks with higher harmonic levels and/or high ambient temperature |

| Temperature class | admissible ambient temperature | | |
|-------------------|--------------------------------|----------------|--------------------------|
| | maximum | mean over 24 h | highest mean over 1 year |
| D | 55°C | 45°C | 35°C |

Power Factor Correction Capacitors

Type LKT...-DB for 50Hz and 60Hz



Basic Capacitors

| Capacitor Type | Dimensions mm | Article-No. | Rated Reactive Power in kvar at Rated Voltage 50 Hz | | | | | | | | |
|-------------------------------|---------------|-------------|---|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | 230 V | 250 V | 300 V | 400 V | 415 V | 440 V | 460 V | 480 V | 525 V |
| Three-phase capacitors | | | | | | | | | | | |
| LKT 5.0-400-DB | 60×150 | 31-10414 | 1.7 | 2.0 | 2.8 | 5.0 | | | | | |
| LKT 6.25-400-DB | 60×150 | 31-10400 | 2.1 | 2.4 | 3.5 | 6.25 | | | | | |
| LKT 7.5-400-DB | 60×150 | 31-10415 | 2.5 | 2.9 | 4.2 | 7.5 | | | | | |
| LKT 10.0-400-DB | 60×225 | 31-10416 | 3.3 | 3.9 | 5.6 | 10.0 | | | | | |
| LKT 12.5-400-DB | 60×225 | 31-10401 | 4.2 | 4.9 | 7.0 | 12.5 | | | | | |
| LKT 15.0-400-DB | 70×225 | 31-10417 | 5.0 | 5.9 | 8.4 | 15.0 | | | | | |
| LKT 20.0-400-DB | 85×215 | 31-10418 | 6.7 | 7.8 | 11.3 | 20.0 | | | | | |
| LKT 25.0-400-DB | 85×278 | 31-10402 | 8.3 | 9.8 | 14.1 | 25.0 | | | | | |
| LKT 30.0-400-DB | 85×320 | 31-10403 | 9.9 | 11.7 | 16.9 | 30.0 | | | | | |
| LKT 6.25-440-DB | 60×150 | 31-10404 | 1.7 | | | 5.2 | 5.6 | 6.25 | | | |
| LKT 10.0-440-DB | 60×225 | 31-10412 | 2.7 | | | 8.3 | 8.9 | 10.0 | | | |
| LKT 12.5-440-DB | 60×225 | 31-10405 | 3.4 | | | 10.3 | 11.1 | 12.5 | | | |
| LKT 15.0-440-DB | 70×225 | 31-10406 | 4.1 | | | 12.4 | 13.3 | 15.0 | | | |
| LKT 20.0-440-DB | 85×278 | 31-10413 | 5.5 | | | 16.5 | 17.8 | 20.0 | | | |
| LKT 25.0-440-DB | 85×278 | 31-10407 | 6.8 | | | 20.7 | 22.2 | 25.0 | | | |
| LKT 30.0-440-DB | 85×278 | 31-10408 | 8.2 | | | 24.8 | 26.7 | 30.0 | | | |
| LKT 6.25-525-DB | 60×225 | 31-10409 | | | | 3.6 | 3.9 | 4.4 | 5.2 | 6.25 | |
| LKT 12.5-525-DB | 70×225 | 31-10410 | | | | 7.3 | 7.8 | 8.8 | 10.4 | 12.5 | |
| LKT 15.0-525-DB | 70×225 | 31-10419 | | | | 8.7 | 9.4 | 10.5 | 12.5 | 15.0 | |
| LKT 20.0-525-DB | 70×265 | 31-10420 | | | | 11.6 | 12.5 | 14.1 | 16.7 | 20.0 | |
| LKT 25.0-525-DB | 85×278 | 31-10411 | | | | 14.5 | 15.6 | 17.6 | 20.9 | 25.0 | |

| Capacitor Type | Dimensions mm | Article-No. | Rated Reactive Power in kvar at Rated Voltage 60 Hz | | | | | | | | |
|-------------------------------|---------------|-------------|---|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | 230 V | 250 V | 300 V | 400 V | 415 V | 440 V | 460 V | 480 V | 525 V |
| Three-phase capacitors | | | | | | | | | | | |
| LKT 5.0-400-DB | 60×150 | 31-10414 | 2.0 | 2.3 | 3.4 | 6.0 | | | | | |
| LKT 6.25-400-DB | 60×150 | 31-10400 | 2.5 | 2.9 | 4.2 | 7.5 | | | | | |
| LKT 7.5-400-DB | 60×150 | 31-10415 | 3.0 | 3.5 | 5.0 | 9.0 | | | | | |
| LKT 10.0-400-DB | 60×225 | 31-10416 | 4.0 | 4.7 | 6.8 | 12.0 | | | | | |
| LKT 12.5-400-DB | 60×225 | 31-10401 | 5.0 | 5.9 | 8.4 | 15.0 | | | | | |
| LKT 15.0-400-DB | 70×225 | 31-10417 | 6.0 | 7.0 | 10.1 | 18.0 | | | | | |
| LKT 20.0-400-DB | 85×215 | 31-10418 | 7.9 | 9.4 | 13.5 | 24.0 | | | | | |
| LKT 25.0-400-DB | 85×278 | 31-10402 | 9.9 | 11.7 | 16.9 | 30.0 | | | | | |
| LKT 30.0-400-DB | 85×320 | 31-10403 | 11.9 | 14.1 | 20.3 | 36.0 | | | | | |
| LKT 6.25-440-DB | 60×150 | 31-10404 | 2.0 | | | 6.25 | 6.7 | 7.5 | | | |
| LKT 10.0-440-DB | 60×225 | 31-10412 | 3.3 | | | 9.9 | 10.7 | 12.0 | | | |
| LKT 12.5-440-DB | 60×225 | 31-10405 | 4.1 | | | 12.4 | 13.3 | 15.0 | | | |
| LKT 15.0-440-DB | 70×225 | 31-10406 | 4.9 | | | 14.9 | 16.0 | 18.0 | | | |
| LKT 20.0-440-DB | 85×278 | 31-10413 | 6.7 | | | 19.8 | 21.4 | 24.0 | | | |
| LKT 25.0-440-DB | 85×278 | 31-10407 | 8.2 | | | 24.8 | 26.7 | 30.0 | | | |
| LKT 30.0-440-DB | 85×278 | 31-10408 | 9.8 | | | 29.8 | 32.0 | 36.0 | | | |
| LKT 6.25-525-DB | 60×225 | 31-10409 | | | | 4.4 | 5.3 | 5.8 | 6.3 | 7.5 | |
| LKT 12.5-525-DB | 70×225 | 31-10410 | | | | 8.7 | 10.5 | 11.5 | 12.5 | 15.0 | |
| LKT 15.0-525-DB | 70×225 | 31-10419 | | | | 10.5 | 12.6 | 13.8 | 15.1 | 18.0 | |
| LKT 20.0-525-DB | 70×265 | 31-10420 | | | | 13.9 | 16.9 | 18.4 | 20.1 | 24.0 | |
| LKT 25.0-525-DB | 85×278 | 31-10411 | | | | 17.4 | 21.1 | 23.0 | 25.1 | 30.0 | |

Power Factor Correction Capacitors

Type LKT...-DP/...-EP for 50Hz



Standard Capacitors

| Capacitor Type | Dimensions mm | Article-No. | Rated Reactive Power in kvar at Rated Voltage 50 Hz | | | | | | | |
|--------------------------------|---------------|-------------|---|-------|-------|-------|-------|-------|-------|-------|
| | | | 230 V | 250 V | 300 V | 400 V | 415 V | 440 V | 480 V | 525 V |
| Three-phase capacitors | | | | | | | | | | |
| LKT 7.1-300-DP | 60×225 | 31-10523 | 4.2 | 4.9 | 7.1 | | | | | |
| LKT 14.2-300-DP | 70×265 | 31-10524 | 8.3 | 9.9 | 14.2 | | | | | |
| LKT 21.3-300-DP | 85×278 | 31-10525 | 12.5 | 14.8 | 21.3 | | | | | |
| LKT 5.0-400-DP | 60×150 | 31-10500 | 1.7 | 2.0 | 2.8 | 5.0 | | | | |
| LKT 10.0-400-DP | 60×225 | 31-10501 | 3.3 | 3.9 | 5.6 | 10.0 | | | | |
| LKT 12.5-400-DP | 70×225 | 31-10502 | 4.2 | 4.9 | 7.0 | 12.5 | | | | |
| LKT 15.0-400-DP | 70×265 | 31-10503 | 5.0 | 5.9 | 8.4 | 15.0 | | | | |
| LKT 20.0-400-DP | 85×278 | 31-10504 | 6.7 | 7.8 | 11.3 | 20.0 | | | | |
| LKT 25.0-400-DP | 85×278 | 31-10505 | 8.3 | 9.8 | 14.1 | 25.0 | | | | |
| LKT 3.8-440-DP | 60×150 | 31-10534 | 1.0 | | | 3.1 | 3.4 | 3.8 | | |
| LKT 10.0-440-DP | 60×225 | 31-10508 | 2.7 | | | 8.3 | 8.9 | 10.0 | | |
| LKT 12.5-440-DP | 70×225 | 31-10507 | 3.4 | | | 10.3 | 11.1 | 12.5 | | |
| LKT 15.0-440-DP | 70×225 | 31-10506 | 4.1 | | | 12.4 | 13.3 | 15.0 | | |
| LKT 20.0-440-DP | 85×278 | 31-10512 | 5.5 | | | 16.5 | 17.8 | 20.0 | | |
| LKT 25.0-440-DP | 85×278 | 31-10510 | 6.8 | | | 20.7 | 22.2 | 25.0 | | |
| LKT 28.2-440-DP | 85×320 | 31-10535 | 8.0 | | | 23.3 | 25.0 | 28.2 | | |
| LKT 30.0-440-DP | 85×325 | 31-10509 | 8.2 | | | 24.8 | 26.7 | 30.0 | | |
| LKT 15.5-480-DP | 70×225 | 31-10513 | 3.6 | | | 10.8 | 11.6 | 13.1 | 15.5 | |
| LKT 18.0-480-DP | 70×265 | 31-10522 | 4.2 | | | 12.5 | 13.5 | 15.1 | 18.0 | |
| LKT 10.0-525-DP | 70×225 | 31-10517 | | | | 5.8 | 6.3 | 7.0 | 8.3 | 10.0 |
| LKT 12.5-525-DP | 70×225 | 31-10516 | | | | 7.3 | 7.8 | 8.8 | 10.4 | 12.5 |
| LKT 15.0-525-DP | 70×265 | 31-10520 | | | | 8.7 | 9.4 | 10.5 | 12.5 | 15.0 |
| LKT 20.0-525-DP | 85×278 | 31-10521 | | | | 11.6 | 12.5 | 14.1 | 16.7 | 20.0 |
| LKT 25.0-525-DP | 85×278 | 31-10519 | | | | 14.5 | 15.6 | 17.6 | 20.9 | 25.0 |
| Single-phase capacitors | | | | | | | | | | |
| LKT 3.33-440-EP | 60×90 | 31-10526 | 0.9 | | | 2.8 | 3.0 | 3.3 | | |
| LKT 4.17-440-EP | 60×138 | 31-10527 | 1.1 | | | 3.4 | 3.7 | 4.2 | | |
| LKT 5.0-440-EP | 60×138 | 31-10528 | 1.4 | | | 4.1 | 4.4 | 5.0 | | |
| LKT 9.4-440-EP | 70×138 | 31-10511 | 2.6 | | | 7.8 | 8.4 | 9.4 | | |
| LKT 2.4-480-EP | 60×90 | 31-10529 | 0.6 | | | 1.7 | 1.8 | 2.0 | 2.4 | |
| LKT 3.33-480-EP | 60×90 | 31-10530 | 0.8 | | | 2.3 | 2.5 | 2.8 | 3.3 | |
| LKT 3.6-480-EP | 60×138 | 31-10531 | 0.8 | | | 2.5 | 2.7 | 3.0 | 3.6 | |
| LKT 4.8-480-EP | 60×138 | 31-10515 | 1.1 | | | 3.3 | 3.6 | 4.0 | 4.8 | |
| LKT 6.0-480-EP | 60×138 | 31-10514 | 1.4 | | | 4.2 | 4.5 | 5.0 | 6.0 | |
| LKT 2.8-525-EP | 60×90 | 31-10532 | | | | 1.6 | 1.8 | 2.0 | 2.3 | 2.8 |
| LKT 3.33-525-EP | 60×138 | 31-10533 | | | | 1.9 | 2.1 | 2.3 | 2.8 | 3.4 |
| LKT 8.33-525-EP | 70×138 | 31-10518 | | | | 4.8 | 5.2 | 5.9 | 7.0 | 8.3 |

Power Factor Correction Capacitors

Type LKT...-DP/...-EP for 60 Hz



Standard Capacitors

| Capacitor Type | Dimensions mm | Article-No. | Rated Reactive Power in kvar at Rated Voltage 60 Hz | | | | | | | | |
|--------------------------------|---------------|-------------|---|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | 230 V | 250 V | 300 V | 400 V | 415 V | 440 V | 460 V | 480 V | 525 V |
| Three-phase capacitors | | | | | | | | | | | |
| LKT 7.1-300-DP | 60×225 | 31-10523 | 5.0 | 5.9 | 8.5 | | | | | | |
| LKT 14.2-300-DP | 70×265 | 31-10524 | 10.0 | 11.8 | 17.0 | | | | | | |
| LKT 21.3-300-DP | 85×278 | 31-10525 | 15.0 | 17.7 | 25.5 | | | | | | |
| LKT 5.0-400-DP | 60×150 | 31-10500 | 2.0 | 2.3 | 3.3 | 6.0 | | | | | |
| LKT 10.0-400-DP | 60×225 | 31-10501 | 4.0 | 4.7 | 6.8 | 12.0 | | | | | |
| LKT 12.5-400-DP | 70×225 | 31-10502 | 5.0 | 5.9 | 8.4 | 15.0 | | | | | |
| LKT 15.0-400-DP | 70×265 | 31-10503 | 6.0 | 7.0 | 10.1 | 18.0 | | | | | |
| LKT 20.0-400-DP | 85×278 | 31-10504 | 8.0 | 9.4 | 13.5 | 24.0 | | | | | |
| LKT 25.0-400-DP | 85×278 | 31-10505 | 9.9 | 11.7 | 16.9 | 30.0 | | | | | |
| LKT 3.8-440-DP | 60×150 | 31-10534 | 1.3 | | | 3.8 | 4.1 | 4.6 | | | |
| LKT 10.0-440-DP | 60×225 | 31-10508 | 3.3 | | | 9.9 | 10.7 | 12.0 | | | |
| LKT 12.5-440-DP | 70×225 | 31-10507 | 4.1 | | | 12.4 | 13.3 | 15.0 | | | |
| LKT 15.0-440-DP | 70×225 | 31-10506 | 4.9 | | | 14.9 | 16.0 | 18.0 | | | |
| LKT 20.0-440-DP | 85×278 | 31-10512 | 6.7 | | | 19.8 | 21.4 | 24.0 | | | |
| LKT 25.0-440-DP | 85×278 | 31-10510 | 8.2 | | | 24.8 | 26.7 | 30.0 | | | |
| LKT 28.2-440-DP | 85×320 | 31-10535 | 9.2 | | | 27.9 | 30.0 | 33.8 | | | |
| LKT 30.0-440-DP | 85×325 | 31-10509 | 9.8 | | | 29.8 | 32.0 | 36.0 | | | |
| LKT 15.5-480-DP | 70×225 | 31-10513 | 4.3 | | | 13.0 | 13.9 | 15.7 | | 18.6 | |
| LKT 18.0-480-DP | 70×265 | 31-10522 | 5.0 | | | 15.0 | 16.2 | 18.2 | | 21.6 | |
| LKT 10.0-525-DP | 70×225 | 31-10517 | | | | 7.0 | 7.5 | 8.3 | 9.2 | 10.0 | 12.0 |
| LKT 12.5-525-DP | 70×225 | 31-10516 | | | | 8.7 | 9.4 | 10.5 | 11.5 | 12.5 | 15.0 |
| LKT 15.0-525-DP | 70×265 | 31-10520 | | | | 10.4 | 11.3 | 12.6 | 13.8 | 15.0 | 18.0 |
| LKT 20.0-525-DP | 85×278 | 31-10521 | | | | 13.9 | 15.0 | 16.9 | 18.4 | 20.1 | 24.0 |
| LKT 25.0-525-DP | 85×278 | 31-10519 | | | | 17.4 | 18.8 | 21.1 | 23.0 | 25.1 | 30.0 |
| Single-phase capacitors | | | | | | | | | | | |
| LKT 3.33-440-EP | 60×90 | 31-10526 | 1.1 | | | 3.3 | 3.6 | 4.0 | | | |
| LKT 4.17-440-EP | 60×138 | 31-10527 | 1.4 | | | 4.1 | 4.5 | 5.0 | | | |
| LKT 5.0-440-EP | 60×138 | 31-10528 | 1.6 | | | 5.0 | 5.3 | 6.0 | | | |
| LKT 9.4-440-EP | 70×138 | 31-10511 | 3.1 | | | 9.3 | 10.0 | 11.3 | | | |
| LKT 2.4-480-EP | 60×90 | 31-10529 | 0.7 | | | 2.0 | 2.2 | 2.4 | | 2.9 | |
| LKT 3.33-480-EP | 60×90 | 31-10530 | 0.9 | | | 2.8 | 3.0 | 3.4 | | 4.0 | |
| LKT 3.6-480-EP | 60×138 | 31-10531 | 1.0 | | | 3.0 | 3.2 | 3.7 | | 4.3 | |
| LKT 4.8-480-EP | 60×138 | 31-10515 | 1.3 | | | 4.0 | 4.3 | 4.8 | | 5.8 | |
| LKT 6.0-480-EP | 60×138 | 31-10514 | 1.7 | | | 5.0 | 5.4 | 6.0 | | 7.2 | |
| LKT 2.8-525-EP | 60×90 | 31-10532 | | | | 1.9 | 2.0 | 2.4 | 2.6 | 2.8 | 3.4 |
| LKT 3.33-525-EP | 60×138 | 31-10533 | | | | 2.3 | 2.5 | 2.8 | 3.1 | 3.3 | 4.0 |
| LKT 8.33-525-EP | 70×138 | 31-10518 | | | | 5.8 | 6.3 | 7.0 | 7.7 | 8.3 | 10.0 |

Power Factor Correction Capacitors

Type LKT...-DL for 50Hz and 60Hz



Premium Capacitors

| Capacitor Type | Dimensions mm | Article-No. | Rated Reactive Power in kvar at Rated Voltage 50 Hz | | | | | | |
|-------------------------------|---------------|-------------|---|-------|-------|-------|-------|-------|-------|
| | | | 230 V | 400 V | 415V | 440 V | 480 V | 525 V | 610 V |
| Three-phase capacitors | | | | | | | | | |
| LKT 5.0-400-DL | 60×225 | 31-10600 | 1.7 | 5.0 | 5.4* | 6.1* | | | |
| LKT 6.25-400-DL | 60×225 | 31-10601 | 2.1 | 6.25 | 6.7* | 7.6* | | | |
| LKT 9.3-400-DL | 70×225 | 31-10602 | 3.0 | 9.3 | 10.0* | 11.3* | | | |
| LKT 10.0-400-DL | 70×225 | 31-10603 | 3.3 | 10.0 | 10.8* | 12.1* | | | |
| LKT 11.7-400-DL | 70×225 | 31-10604 | 3.9 | 11.7 | 12.6* | 14.2* | | | |
| LKT 12.5-400-DL | 70×225 | 31-10605 | 4.2 | 12.5 | 13.5* | 15.1* | | | |
| LKT 20.0-400-DL | 85×278 | 31-10606 | 6.7 | 20.0 | 21.5* | 24.2* | | | |
| LKT 5.0-440-DL | 60×225 | 31-10607 | 1.4 | 4.2 | 4.5 | 5.0 | 6.0* | | |
| LKT 7.6-440-DL | 60×225 | 31-10608 | 2.1 | 6.25 | 6.8 | 7.6 | 9.0* | | |
| LKT 9.1-440-DL | 60×225 | 31-10609 | 2.5 | 7.5 | 8.1 | 9.1 | 10.8* | | |
| LKT 12.1-440-DL | 70×225 | 31-10610 | 3.3 | 10.0 | 10.8 | 12.1 | 14.4* | | |
| LKT 17.6-440-DL | 85×278 | 31-10612 | 4.8 | 14.5 | 15.6 | 17.6 | 21.0* | | |
| LKT 3.6-480-DL | 60×150 | 31-10613 | | 2.5 | 2.7 | 3.0 | 3.6 | 4.3* | |
| LKT 4.5-480-DL | 60×150 | 31-10614 | | 3.1 | 3.4 | 3.8 | 4.5 | 5.4* | |
| LKT 7.2-480-DL | 60×225 | 31-10615 | | 5.0 | 5.4 | 6.0 | 7.2 | 8.6* | |
| LKT 7.8-480-DL | 60×225 | 31-10616 | | 5.4 | 5.8 | 6.5 | 7.8 | 9.3* | |
| LKT 10.4-480-DL | 70×225 | 31-10617 | | 7.3 | 7.8 | 8.8 | 10.4 | 12.4* | |
| LKT 12.5-480-DL | 70×265 | 31-10618 | | 8.7 | 9.4 | 10.5 | 12.5 | 15.0* | |
| LKT 4.17-525-DL | 60×225 | 31-10619 | | | | 2.9 | 3.5 | 4.2 | 5.6* |
| LKT 5.9-525-DL | 60×225 | 31-10620 | | | | 4.2 | 5.0 | 5.9 | 8.0* |
| LKT 7.7-525-DL | 70×225 | 31-10621 | | | | 5.4 | 6.5 | 7.7 | 10.4* |
| LKT 8.3-525-DL | 70×225 | 31-10622 | | | | 5.8 | 7.0 | 8.3 | 11.3* |

| Capacitor Type | Dimensions mm | Article-No. | Rated Reactive Power in kvar at Rated Voltage 60 Hz | | | | | | | |
|-------------------------------|---------------|-------------|---|-------|-------|-------|-------|-------|-------|-------|
| | | | 230 V | 400 V | 415V | 440 V | 460 V | 480 V | 525 V | 610 V |
| Three-phase capacitors | | | | | | | | | | |
| LKT 5.0-400-DL | 60×225 | 31-10600 | 2.0 | 6.0 | 6.5* | 7.3* | | | | |
| LKT 6.25-400-DL | 60×225 | 31-10601 | 2.5 | 7.5 | 8.1* | 9.1* | | | | |
| LKT 9.3-400-DL | 70×225 | 31-10602 | 3.7 | 11.1 | 12.0* | 13.5* | | | | |
| LKT 10.0-400-DL | 70×225 | 31-10603 | 4.0 | 12.0 | 12.9* | 14.5* | | | | |
| LKT 11.7-400-DL | 70×225 | 31-10604 | 4.6 | 14.0 | 15.1* | 17.0* | | | | |
| LKT 12.5-400-DL | 70×225 | 31-10605 | 5.0 | 15.0 | 16.2* | 18.2* | | | | |
| LKT 20.0-400-DL | 85×278 | 31-10606 | 7.9 | 24.0 | 25.8* | 29.0* | | | | |
| LKT 5.0-440-DL | 60×225 | 31-10607 | 1.7 | 5.0 | 5.4 | 6.0 | 6.6* | 7.1* | | |
| LKT 7.6-440-DL | 60×225 | 31-10608 | 2.5 | 7.5 | 8.1 | 9.1 | 9.9* | 10.9* | | |
| LKT 9.1-440-DL | 60×225 | 31-10609 | 3.0 | 9.0 | 9.7 | 10.9 | 11.9* | 13.0* | | |
| LKT 12.1-440-DL | 70×225 | 31-10610 | 4.0 | 12.0 | 12.9 | 14.5 | 15.8* | 17.3* | | |
| LKT 17.6-440-DL | 85×278 | 31-10612 | 5.8 | 17.4 | 18.8 | 21.1 | 23.1* | 25.1* | | |
| LKT 3.6-480-DL | 60×150 | 31-10613 | | 3.0 | | 3.6 | 4.0 | 4.3 | 5.2* | |
| LKT 4.5-480-DL | 60×150 | 31-10614 | | 3.8 | | 4.6 | 5.0 | 5.4 | 6.5* | |
| LKT 7.2-480-DL | 60×225 | 31-10615 | | 6.0 | | 7.2 | 7.9 | 8.6 | 10.3* | |
| LKT 7.8-480-DL | 60×225 | 31-10616 | | 6.5 | | 7.9 | 8.6 | 9.3 | 11.2* | |
| LKT 10.4-480-DL | 70×225 | 31-10617 | | 8.7 | | 10.5 | 11.5 | 12.5 | 14.9* | |
| LKT 12.5-480-DL | 70×265 | 31-10618 | | 10.4 | | 12.6 | 13.8 | 15.0 | 18.0* | |
| LKT 4.17-525-DL | 60×225 | 31-10619 | | | | | 3.8 | 4.2 | 5.0 | 6.8* |
| LKT 5.9-525-DL | 60×225 | 31-10620 | | | | | 5.5 | 5.9 | 7.1 | 9.6* |
| LKT 7.7-525-DL | 70×225 | 31-10621 | | | | | 7.1 | 7.8 | 9.3 | 12.5* |
| LKT 8.3-525-DL | 70×225 | 31-10622 | | | | | 7.6 | 8.3 | 10.0 | 13.5* |

Generally, DL-type capacitors can also be operated at higher voltages with the DP-type specification. Please note that the DP values in the chart are marked with *

Power Factor Correction Capacitors
Type LKT



80
Years
FRAKO
1928-2008



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