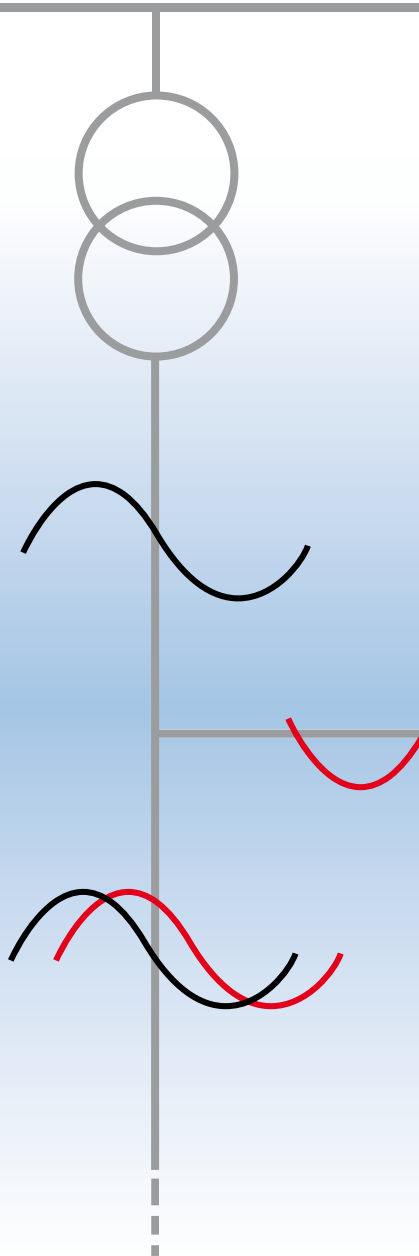


# Power Factor Correction Capacitors Type LKT



## 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
- CO<sub>2</sub> emission reduction
- Saves 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.

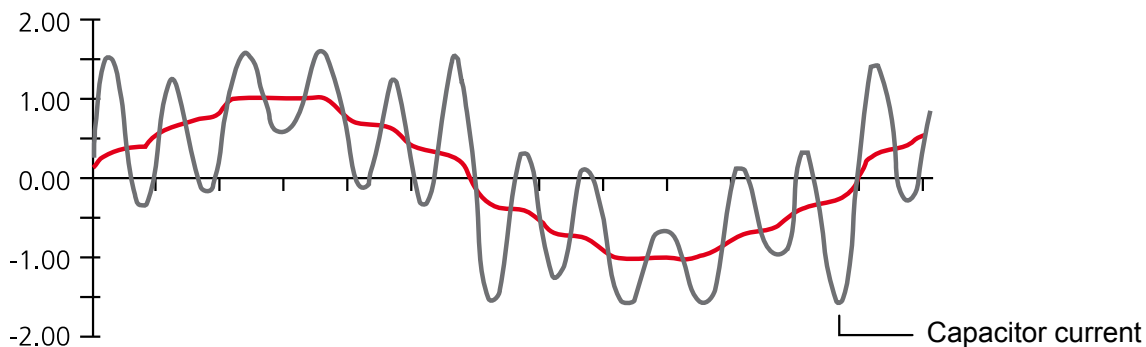
### // Technical Remarks

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:

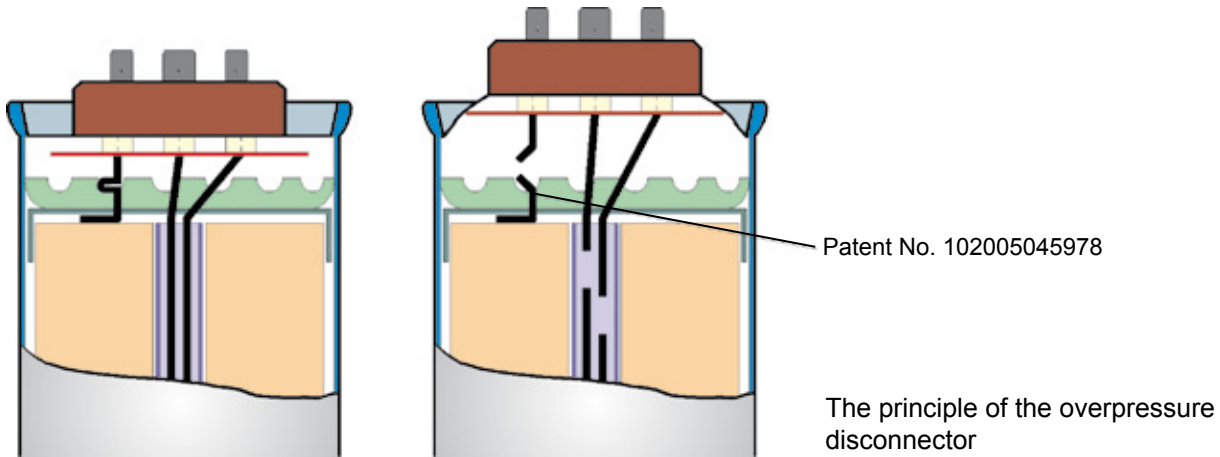
- Self-healing at over-voltage
- Reliable in operation because of segmented film
- An overpressure disconnecter disconnects the capacitors from the mains at the end of their lifetime or at dangerous overload



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; 50/60Hz (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

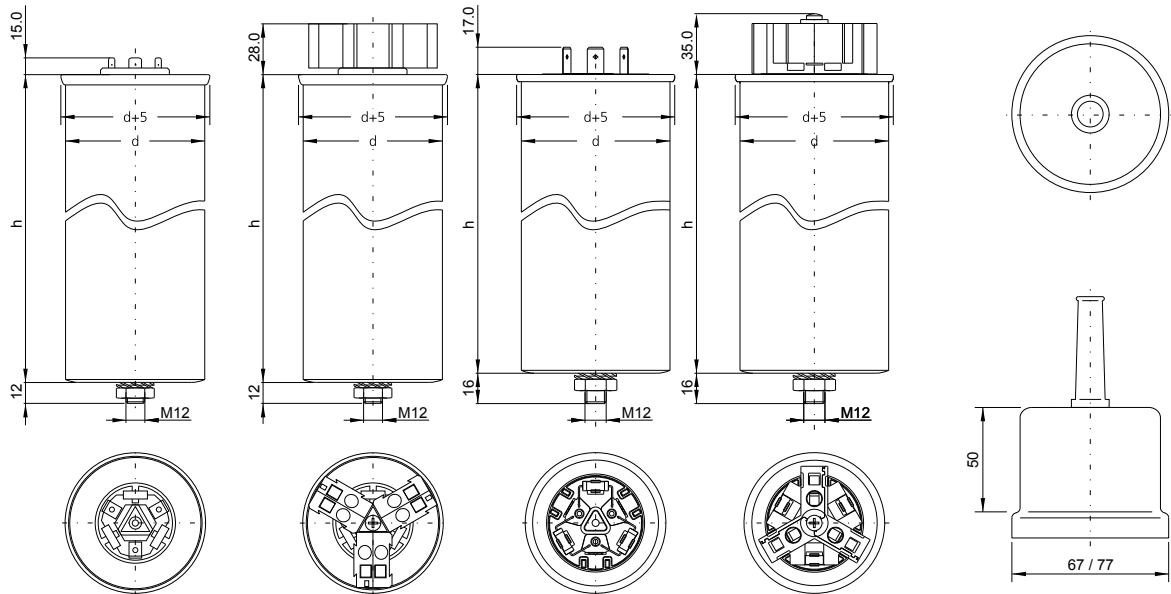
Article-No.	Description	Type
31-08000	Plug-in type connecting terminal for capacitors with $\varnothing$ 60mm and $\varnothing$ 70 mm, three-phase	AKD 25/3
31-08002	Plug-in type connecting terminal for capacitors with $\varnothing$ 60mm and $\varnothing$ 70 mm, single-phase	AKD 25/2
31-08003	Plug-in 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 mm<sup>2</sup>  
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 mm<sup>2</sup>  
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
<b>Three-phase capacitors</b>											
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
<b>Three-phase capacitors</b>											
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
<b>Three-phase capacitors</b>										
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
<b>Single-phase capacitors</b>										
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
<b>Three-phase capacitors</b>											
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
<b>Single-phase capacitors</b>											
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 50 Hz and 60 Hz



### 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
<b>Three-phase capacitors</b>									
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
<b>Three-phase capacitors</b>										
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



Kondensatoren- und Anlagenbau GmbH

Tscheulinstr. 21a · 79331 Teningen · Germany  
Tel. +49-7641-453-0 · Fax +49-7641-453-545  
<http://www.frako.com> · E-Mail: [info@frako.com](mailto:info@frako.com)

