



**KBK HIGH VOLTAGE
CAPACITOR AND EQUIPMENT**

CHARGING SOLUTIONS POWERING PROGRESS

K&BN
General Electric Solution



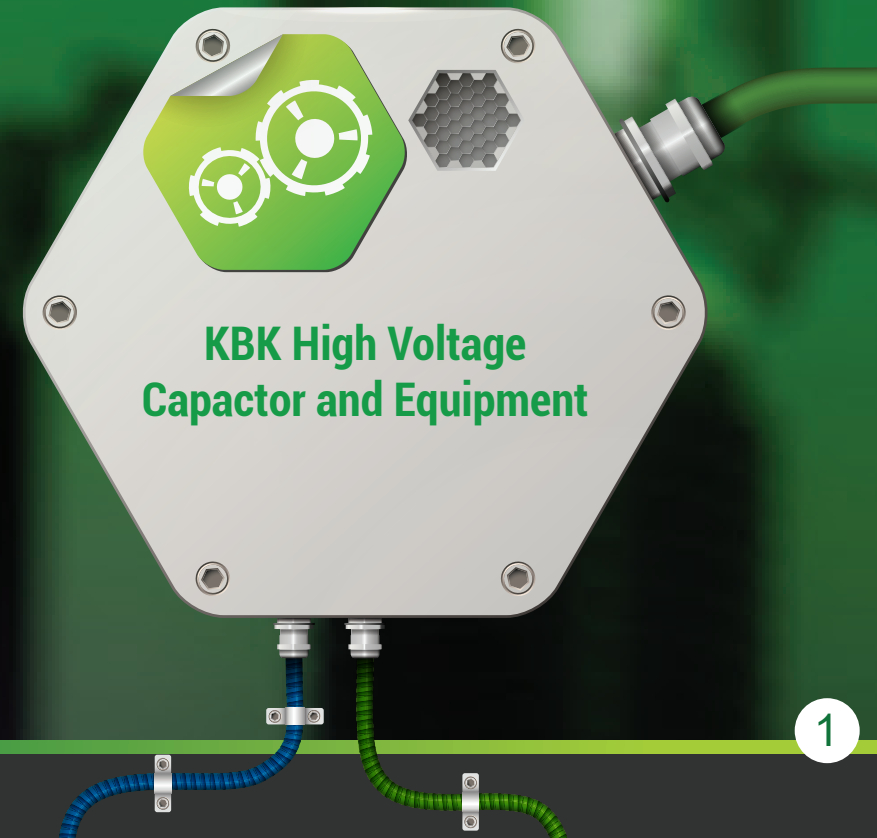
KBK HIGH VOLTAGE CAPACITOR AND EQUIPMENT

CHARGING SOLUTIONS POWERING PROGRESS

INTRODUCTION

KOBN High Voltage Capacitor and Equipment proudly unveils its cutting-edge High-Voltage Capacitor Charging Unit, representing the pinnacle of energy storage technology with industry-leading 98% conversion efficiency and intelligent adaptive charging algorithms, specifically engineered to deliver ultra-precise, high-current power conversion for mission-critical industrial energy storage systems across the 1kV to 100kV range, incorporating military-grade protection systems including triple-redundant overvoltage safeguards, thermal overload prevention, and nanosecond-response short circuit interruption, all housed in an IP65-rated ruggedized enclosure with vibration-resistant construction and wide-temperature operation (-40°C to +85°C) specifically designed to withstand the most extreme environmental conditions encountered in demanding critical infrastructure applications such as smart grid power plants, high-availability substations, electrified railway systems, and offshore oil & gas platforms

T & C's Apply. Product Specifications, Images and Details subject to change without prior notice.



Why Choose US

Extreme Durability

Military-grade, -40°C to $+85^{\circ}\text{C}$ operation

Grid Boosters

Patented tech increases capacity 200%

Zero Failures

100% tested, industry-low leak rates

Custom Solutions

2.4kV–600kV systems, any application

Top Efficiency

98% energy conversion



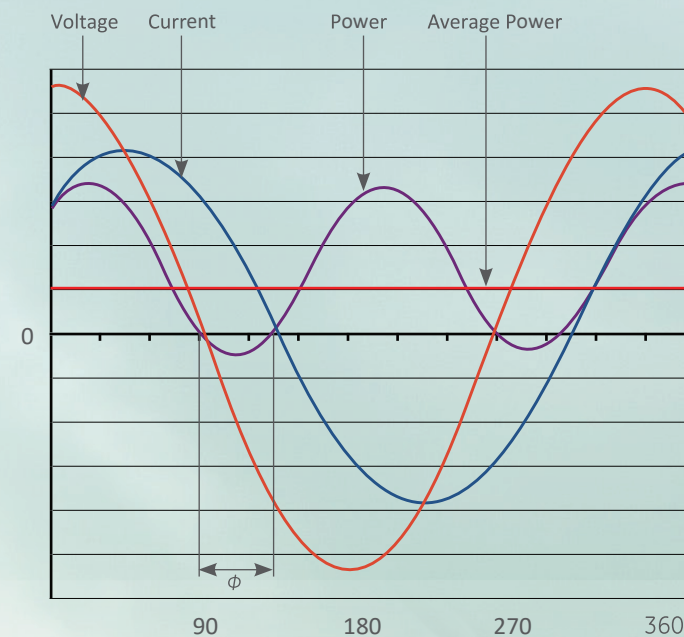
➤ Specifications for High Voltage Capacitors and Equipment Reasons for Power Correction

The increasing prevalence of inductive loads in utility systems has disrupted the optimal functioning of AC power networks. These loads create a heightened demand for reactive power (measured in kilovars), which must be delivered alongside active power (kilowatts) to maintain efficient transmission and distribution.

➤ Impact on the Power Triangle:

- The waveforms of voltage and current become misaligned, with one leading the other.
- The phase difference between voltage and current deviates from zero.
- This misalignment reduces the power factor below its ideal value of 1 (unity).

In a basic AC circuit with purely resistive loads, voltage and current remain in sync, oscillating together. Here, their product (representing power) stays positive at all times, showing that energy flows consistently in one direction, transferring only real power. However, when the load introduces reactance, voltage and current fall out of phase. As a result, their product periodically turns negative, causing momentary reversals in energy flow and reducing overall system efficiency.



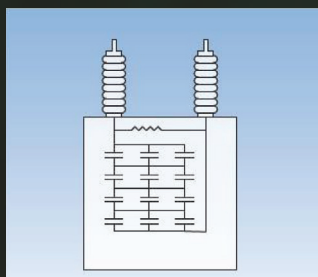


Types of Capacitor Protection Designs

34.5KV L-L OPEN RACK SHUNT



Fuseless Design



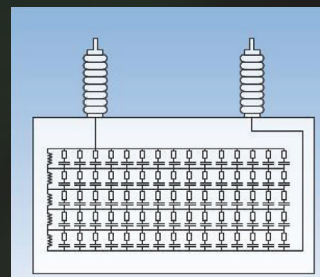
- Lowest losses, typically < 0.12 watts/kVAR
- Highest reliability: A lower internal element voltage stress rise for the same number of internal failures in comparison to an internally fused option.
- A higher unbalanced current for the same internal element voltage stress.
- Fault tolerance with continued operation even with failed rolls.

All voltage levels

OPEN RACK OR METAL ENCLOSED



Internally Fused Design



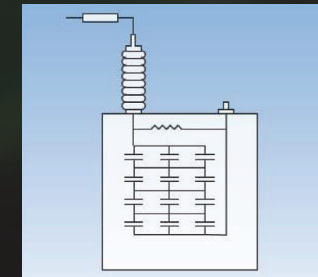
- Losses, typically > 0.15 watts/kVAR
- One fuse per internal roll. Each roll is protected by an internal fuse element.
- The fuse allows the roll to fail as an open circuit
- There are multiple rolls in parallel. This places a very small incremental stress on adjacent rolls when a fuse operates. This helps prevent a cascading failure within an individual capacitor can.

All voltage levels

POLE TOP, OPEN RACK METAL ENCLOSED



Externally Fused Design



- One fuse per capacitor unit. Fewer connections equals fewer points of failure.
- Facilitates easy identification of a failed capacitor as the blown fuse is obvious.
- Once the standard, now limited to specialty applications.



Technical Specifications

> Power Ratings:

Single-phase configurations: 25-1000 kVAR capacity

Three-phase units: Available in 300 & 400 kVAR models

> Operating Voltages:

Suitable for systems ranging from 2.4kV to 25kV

> Enhanced Construction Features:

Robust engineering for superior endurance against harmonic distortion and voltage spikes

Specialized designs to withstand demanding electrical conditions

> Kobn Engineering Advantages:

Our protection systems comply with or surpass IEC 60871 and IEEE 18 requirements

> Manufacturing Excellence:

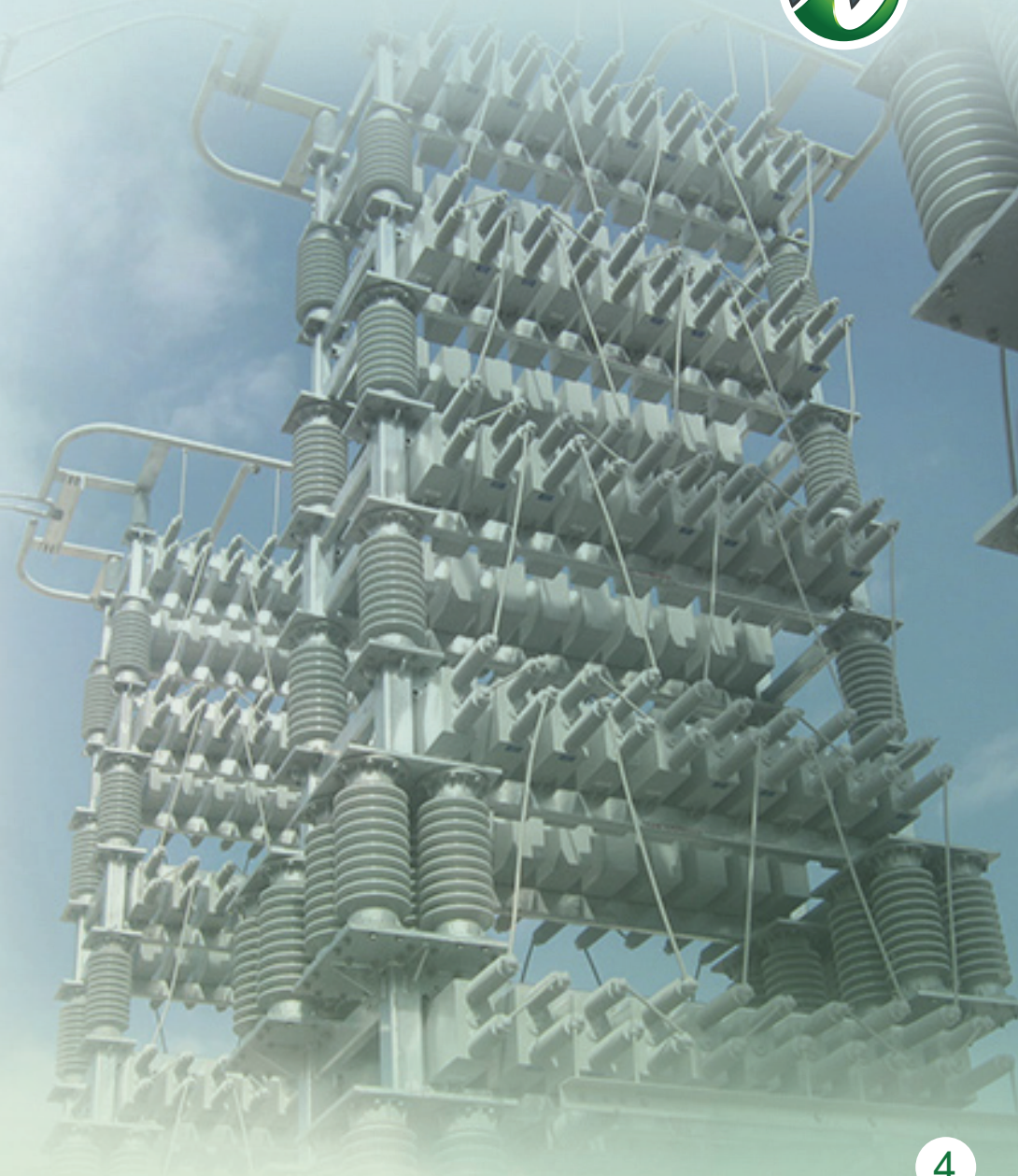
Advanced coil winding technology in controlled environments

Precision-engineered capacitor assemblies ensuring exact capacitance values

Ultrasonic bonding technology for reliable element connections, minimizing structural weaknesses

Innovative folded conductor technology that prevents edge stress concentrations

Computer-controlled enclosure sealing processes for leak-proof reliability





Single Phase High Voltage Capacitors- Standard Ratings

Voltage	BIL	50 kVAR		100 kVAR		150 kVAR		200 kVAR	
		1 Bushing	2 Bushing	1 Bushing	2 Bushing	1 Bushing	2 Bushing	1 Bushing	2 Bushing
2400	95	51L221WC62	51L201WC62	54L221WC62	54L201WC62	54L521WC62	54L501WC62	58L121WC62	58L101WC62
2770	95	51L222WC59	51L202WC59	54L222WC60	54L202WC60	54L522WC60	54L502WC60	58L122WC60	58L102WC60
4160	95	51L223WC28	51L203WC28	54L223WC60	54L203WC60	54L523WC60	54L503WC60	58L123WC60	58L103WC60
4800	95	51L224WC60	51L204WC60	54L224WC62	54L204WC62	54L524WC62	54L504WC62	58L124WC62	58L104WC62
6640	95	51L225WC60	51L205WC60	54L225WC60	54L205WC60	54L525WC60	54L505WC60	58L125WC60	58L105WC60
7200	95	51L226WC60	51L206WC60	54L226WC60	54L206WC60	54L526WC60	54L506WC60	58L126WC60	58L106WC60
7620	95	51L227WC60	51L207WC60	54L227WC60	54L207WC60	54L527WC60	54L507WC60	58L127WC60	58L107WC60
7960	95	51L228WC60	51L208WC60	54L228WC60	54L208WC60	54L528WC60	54L508WC60	58L128WC60	58L108WC60
8320	95	51L235WC60	51L215WC60	54L235WC60	54L215WC60	54L535WC60	54L515WC60	58L129WC60	58L109WC60
9960	95	51L234WC60	51L214WC60	54L234WC60	54L214WC60	54L534WC60	54L514WC60	58L130WC60	58L110WC60
12470	95	51L229WC60	51L209WC60	54L229WC60	54L209WC60	54L529WC60	54L509WC60	58L131WC60	58L111WC60
13280	95	51L230WC60	51L210WC60	54L230WC60	54L210WC60	54L530WC60	54L510WC60	58L132WC60	58L112WC60
13800	95	51L231WC60	51L211WC60	54L231WC60	54L211WC60	54L531WC60	54L511WC60	58L133WC60	58L113WC60
14400	95	51L232WC60	51L212WC60	54L232WC60	54L212WC60	54L532WC60	54L512WC60	58L134WC60	58L114WC60
19920	150	51L255WC62	-	54L255WC62	-	54L555WC60	-	58L155WC60	-
21600	150	51L256WC62	-	54L256WC62	-	54L556WC60	-	58L156WC60	-

Single Phase High Voltage Capacitors- Standard Ratings

Voltage	BIL	300 kVAR		400 kVAR		500 kVAR		600 kVAR	
		1 Bushing	2 Bushing	1 Bushing	2 Bushing	1 Bushing	2 Bushing	1 Bushing	2 Bushing
2400	95	NA	NA	NA	NA	NA	NA	NA	NA
2770	95	NA	NA	NA	NA	NA	NA	NA	NA
4160	95	59L123WC60	59L103WC60	98L123WC60	98L103WC60	NA	NA	NA	NA
4800	95	59L124WC62	59L104WC62	98L124WC63	98L104WC63	NA	NA	NA	NA
6640	95	59L125WC60	59L105WC60	98L125WC60	98L105WC60	98L525WC60	98L505WC60	98L585WC60	98L565WC60
7200	95	59L126WC62	59L106WC62	98L126WC63	98L106WC63	98L526WC62	98L506WC62	98L586WC60	98L566WC60
7620	95	59L127WC60	59L107WC60	98L127WC60	98L107WC60	98L527WC60	98L507WC60	98L587WC60	98L567WC60
7960	95	59L128WC60	59L108WC60	98L128WC60	98L108WC60	98L528WC60	98L508WC60	98L588WC60	98L568WC60
8320	95	59L129WC60	59L109WC60	98L129WC60	98L109WC60	98L529WC60	98L509WC60	98L589WC60	98L569WC60
9960	95	59L130WC60	59L110WC60	98L130WC60	98L110WC60	98L530WC60	98L510WC60	98L590WC60	98L570WC60
12470	95	59L131WC60	59L111WC60	98L131WC60	98L111WC60	98L531WC60	98L511WC60	98L591WC60	98L571WC60
13280	95	59L132WC60	59L112WC60	98L132WC60	98L112WC60	98L532WC60	98L512WC60	98L592WC62	98L572WC62
13800	95	59L133WC60	59L113WC60	98L133WC60	98L113WC60	98L533WC60	98L513WC60	98L593WC62	98L573WC62
14400	95	59L134WC62	59L114WC62	98L134WC62	98L114WC62	98L534WC62	98L514WC62	98L594WC62	98L574WC62
19920	150	59L155WC60	-	98L155WC62	-	98L555WC61	-	98L595WC61	-
21600	150	59L156WC60	-	98L156WC62	-	98L556WC61	-	98L596WC60	-

Single Phase High Voltage Capacitors- Heavy Duty Ratings

Heavy Duty all film dielectric capacitors are designed, manufactured and tested to meet the requirements of all applicable IEEE and IEC standards. In addition they are designed to exceed the requirements of these standards in terms of continuous (rms) and peak overvoltage withstand capabilities. They are rated for 125% continuous (rms) overvoltage capability and 135% peak overvoltage capability. These capacitors are suitable for industrial power systems that have higher voltages or harmonic loads.

Voltage	BIL	50 kVAR		100 kVAR		150 kVAR		200 kVAR	
		1 Bushing	2 Bushing	1 Bushing	2 Bushing	1 Bushing	2 Bushing	1 Bushing	2 Bushing
2400	95	51L221WC10	51L201WC10	54L221WC10	54L201WC10	54L521WC10	54L501WC10	58L121WC10	58L101WC10
2770	95	51L222WC10	51L202WC10	54L222WC10	54L202WC10	54L522WC10	54L502WC10	58L122WC10	58L102WC10
4160	95	51L223WC10	51L203WC10	54L223WC10	54L203WC10	54L523WC10	54L503WC10	58L123WC10	58L103WC10
4800	95	51L224WC10	51L204WC10	54L224WC10	54L204WC10	54L524WC10	54L504WC10	58L124WC10	58L104WC10
6640	95	51L225WC10	51L205WC10	54L225WC10	54L205WC10	54L525WC10	54L505WC10	58L125WC10	58L105WC10
7200	95	51L226WC10	51L206WC10	54L226WC10	54L206WC10	54L526WC10	54L506WC10	58L126WC10	58L106WC10
7620	95	51L227WC10	51L207WC10	54L227WC10	54L207WC10	54L527WC10	54L507WC10	58L127WC10	58L107WC10
7960	95	51L228WC10	51L208WC10	54L228WC10	54L208WC10	54L528WC10	54L508WC10	58L128WC10	58L108WC10
8320	95	51L235WC10	51L215WC10	54L235WC10	54L215WC10	54L535WC10	54L515WC10	58L129WC10	58L109WC10
9960	95	51L234WC10	51L214WC10	54L234WC10	54L214WC10	54L534WC10	54L514WC10	58L130WC10	58L110WC10
12470	95	51L229WC10	51L209WC10	54L229WC10	54L209WC10	54L529WC10	54L509WC10	58L131WC10	58L111WC10
13280	95	51L230WC10	51L210WC10	54L230WC10	54L210WC10	54L530WC10	54L510WC10	58L132WC10	58L112WC10
13800	95	51L231WC10	51L211WC10	54L231WC10	54L211WC10	54L531WC10	54L511WC10	58L133WC10	58L113WC10
14400	95	51L232WC10	51L212WC10	54L232WC10	54L212WC10	54L532WC10	54L512WC10	58L134WC10	58L114WC10
19920	150	51L255WC10	-	54L255WC10	-	54L555WC10	-	58L155WC10	-
21600	150	51L256WC10	-	54L256WC10	-	54L556WC10	-	58L156WC10	-

Voltage	BIL	300 kVAR		400 kVAR		500 kVAR	
		1 Bushing	2 Bushing	1 Bushing	2 Bushing	1 Bushing	2 Bushing
2400	95	NA	NA	NA	NA	NA	NA
2770	95	NA	NA	NA	NA	NA	NA
4160	95	59L123WC10	59L103WC10	98L123WC10	98L103WC10	NA	NA
4800	95	59L124WC10	59L104WC10	98L124WC10	98L104WC10	NA	NA
6640	95	59L125WC10	59L105WC10	98L125WC10	98L105WC10	98L525WC10	98L505WC10
7200	95	59L126WC10	59L106WC10	98L126WC10	98L106WC10	98L526WC10	98L506WC10
7620	95	59L127WC10	59L107WC10	98L127WC10	98L107WC10	98L527WC10	98L507WC10
7960	95	59L128WC10	59L108WC10	98L128WC10	98L108WC10	98L528WC10	98L508WC10
8320	95	59L129WC10	59L109WC10	98L129WC10	98L109WC10	98L529WC10	98L509WC10
9960	95	59L130WC10	59L110WC10	98L130WC10	98L110WC10	98L530WC10	98L510WC10
12470	95	59L131WC10	59L111WC10	98L131WC10	98L111WC10	98L531WC10	98L511WC10
13280	95	59L132WC10	59L112WC10	98L132WC10	98L112WC10	98L532WC10	98L512WC10
13800	95	59L133WC10	59L113WC10	98L133WC10	98L113WC10	98L533WC10	98L513WC10
14400	95	59L134WC10	59L114WC10	98L134WC10	98L114WC10	98L534WC10	98L514WC10
19920	150	59L155WC10	-	98L155WC10	-	98L555WC10	-
21600	150	59L156WC10	-	98L156WC10	-	98L556WC10	-



Three Phase Cantilever Mount Units

These three-phase capacitor units use the same technology as our single-phase units and when mounted directly to a pole offer a convenient single piece alternative to a multi-unit pole mount rack.

Three Phase Standard Ratings and Product Numbers (non-internally fused)

Voltage	BIL (kV)	300 kVAR		400 kVAR	
		3 - Bushing Grounded Wye	4 - Bushing Ungrounded Wye	3 - Bushing Grounded Wye	4 - Bushing Grounded Wye
4160/2400	95	59L603WC29	59L623WC29	98L603WC29	98L623WC29
12470/7200	95	59L611WC59	59L631WC59	98L611WC59	98L631WC59
13200/7620	95	59L612WC59	59L632WC59	98L612WC59	98L632WC59
13800/7960	95	59L613WC59	59L633WC59	98L613WC59	98L633WC59
14400/8320	95	59L614WC59	59L634WC59	98L614WC59	98L634WC59

Three Phase Standard Ratings and Product Numbers (non-internally fused)

Altitude		Altitude Correction (1)
(ft)	(m)	
3,300	1000	1
4,000	1200	0.98
5,000	1500	0.95
6,000	1800	0.92
7,000	2100	0.89
8,000	2400	0.86
9,000	2700	0.83
10,000	3000	0.8
12,000	3600	0.75
14,000	4200	0.7
15,000	4500	0.67

➤ Manufacturing Operations Resulting in Higher Quality

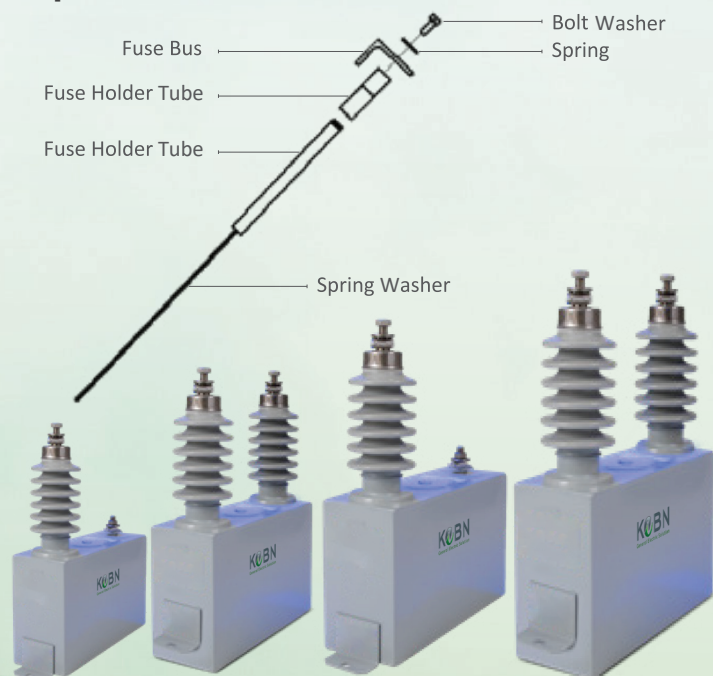
Expulsion Fuse Selection Example

Capacitor Rating: 100 kVAR, 4800V

15 kV and below, capacitor orientation is upright

	Fuse Link	Expulsion Fuse Tube	Fuse Spring
Item	115A162000035	31F2807001	248A695400001

➤ Expulsion Fuse



Fuse Springs	
KOBN Part	Capacitor Orientation
248A695400001	Upright
248A695400002	Edgemount
Bird Caps/Wildlife Protectors	
Item	GE Catalog
Capacitor Bird Caps with Sleeve	614A507000102

Recommended fuse link ratings

Unit Voltage	50 kVAR	100 kVAR	150 kVAR	200 kVAR	300 kVAR	400 kVAR
2400	25T	50K	80K	100K	-----	-----
2770	25T	40T	65K	80K	-----	-----
4160	20T	30T	40T	65K	80K	-----
4800	15T	25T	40T	50K	80K	100K
6640	12T	25T	30T	40T	50K	80K
7200	12T	25T	25T	30T	50K	80K
7620	10T	20T	25T	30T	50K	65K
7960	10T	20T	25T	30T	50K	65K
8320	10T	20T	25T	30T	40T	65K
9960	10T	15T	25T	25T	40T	50K
12470	10T	12T	20T	25T	30T	40T
13280	10T	12T	20T	25T	30T	40T
13800	10T	12T	15T	25T	25T	40T
14400	10T	12T	15T	25T	25T	30T
19920	8T	12T	15T	15T	25T	25T
21600	8T	12T	15T	15T	25T	25T

Fuse Links

KOBN Part	EEI-NEMA rating
115A162000078	8T
115A162000079	10T
115A162000080	12T
115A162000063	15T
115A162000081	20T
115A162000035	25T
115A162000053	30T
115A162000036	40T
115A162000043	50K
115A162000024	65K
115A162000059	80K
115A162000025	100K

Expulsion Fuse Tube

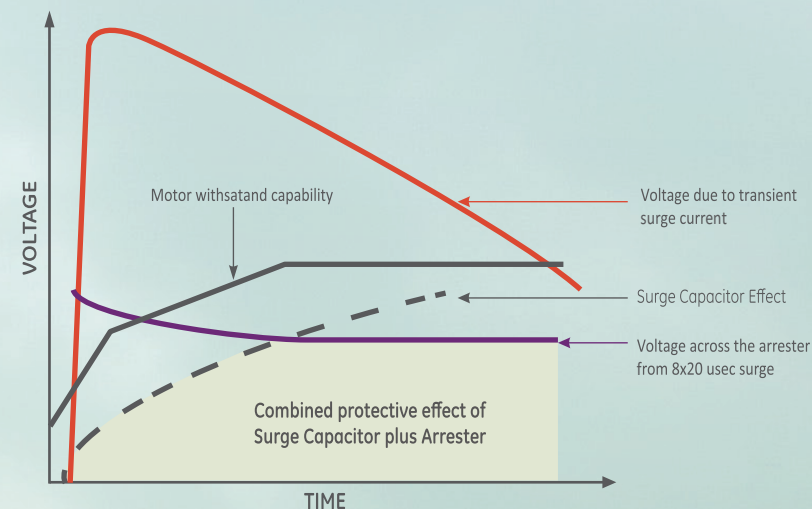
KOBN part	KV	Current	Interrupting
31F2807001	15	50	3600 amp. Sym
31F2808001	23	25	3600/1800 amp Sym
115A161500041	100	100	7400 amp Sym
115A161500049	50	50	1800 amp Sym

➤ Specifications for High Voltage Capacitors and Equipment Reasons for Power Correction

- KOBN Surge Capacitors and Motor Surge Protectors can be installed directly at motor or generator terminals to minimize damage from lightning strikes or switching surges.
- KOBN Surge Protective Capacitors soften the steepness of voltage wave fronts, safeguarding turn-to-turn insulation against surges that occur within or are reflected by machine windings.
- KOBN Motor Surge Protectors combine KOBN Surge Arresters and KOBN Surge Capacitors in parallel. Together, the arresters limit the magnitude of impulse waves or reflections, protecting the primary ground insulation, while the capacitors mitigate wave front steepness. Research shows that this dual-protection method greatly reduces lightning-induced stress on rotating machinery, enhancing reliability and cutting downtime expenses. The housing is designed for both indoor and outdoor use.

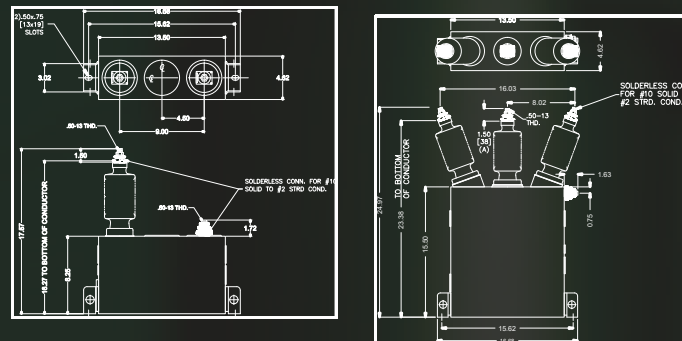
➤ Product Description, Features & Benefits

- Surge Protection for AC generators, synchronous condensers, and large motors
- Reliable KOBN dielectric system with a proven track record
- Dielektro! Non-PCB insulating fluid for enhanced safety
- Protects turn-to-turn insulation by reducing the steepness of voltage wave fronts, whether from external surges or internal reflections
- Works best when paired with TRANQUEL! * KOBN station arresters for maximum surge protection
- Durable construction—protective capacitors feature a film dielectric and hermetically sealed bushings, allowing flexible mounting (upright or on their side)
- Operating altitude: 0 to 15,000 ft**



Voltage Rating rms Volts L-L *	Maximum Voltage rms Volts L-L	Catalog number	Poles per Unit	Microfarads per Pole	Approximate net weight		Drawing
					lbs	Kg	
0 - 650	715	9L18BBB301	3	1	4	18	A
2400	2640	18L0015WH	3	0.5	36	16.5	4
4160	4576	18L0015WH	3	0.5	36	16.5	4
6900	7590	18L0019WH	1	0.5	29	13	1
7200	7960	18L0065WH	3	0.5	35	16	5
13800	15180	18L0009WH	1	0.25	33	15	2
13800	15180	18L0012WH	3	0.25	66	30	6
24000	26400	18L0010WH	1	0.125	57	26	3
24940	-	18L0070WH	1	0.25	75	34	10
750 *	-	18L0004WH	1	4	12	5.5	9
3900 *	-	18L0005WH	1	4	46	20.9	8
13800	15180	18L0051WH	1	0.05	49	22.3	11
13800	15180	18L0060WH 1	1	0.25	32	14.5	6
6900	7590	18L0061WH 1	1	0.5	30	13.6	1
4160	4576	18L0062WH 1	3	0.5	36	16.4	4

Typical Protective Capacitor Drawing



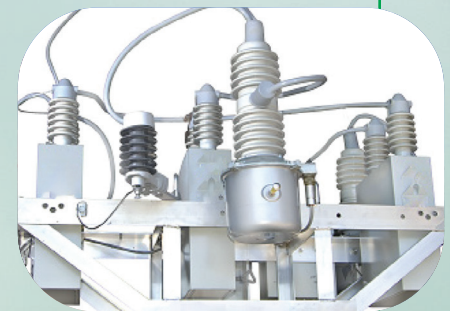
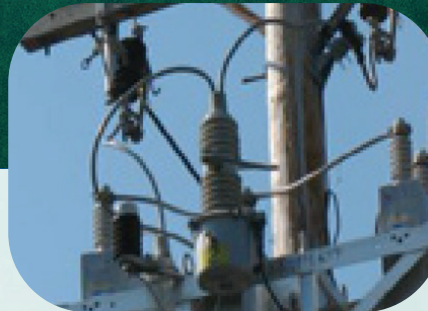
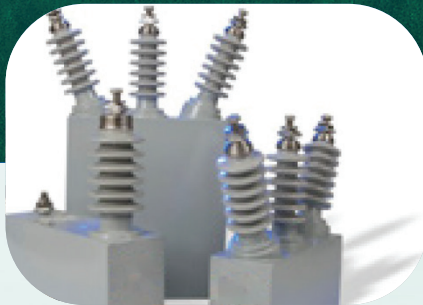
Voltage Rating rms Volts (L-L)	Catalog Number for Delta & Ungrounded Neutral Systems	Catalog Number for Grounded Neutral Systems	Arrester Rating kV rms	Arrester MCOV kV rms	Capacitor Microfarads per Pole µF	Dimension "D" (side view in inches) See drawing for detail	Weight lbs
2400	38F2401	—	3	2.55	0.5	23	300
4160	38F2402	—	6	5.1	0.5	23	300
—	—	38F2403	3	2.55	0.5	23	300
4800	38F2404	—	6	5.1	0.5	23	300
6900	38F2405	—	9	7.65	0.5	23	300
7200	38F2406	—	9	7.65	0.5	23	300
13200	38F2407	—	18	15.3	0.25	23	300
—	—	38F2408	10	8.4	0.25	23	300
13800	38F2409	—	18	15.3	0.25	23	300
—	—	38F2410	12	10.2	0.25	23	300
24000	38F2411	—	27	22	0.125	36	350
—	—	38F2412	21	17	0.125	36	350

Select product from the Selection Table (catalog number from columns 2 or 3, based upon line-to-line voltage in column 1)



High Voltage Capacitor

Types and Benefits of High Voltage Capacitor Equipment and Harmonic Filters



► Use on Transmission System

- Released generation capacity
- Improved power factor and system stability
- Regulating of voltage levels
- Reduced transmission losses
- Raised Voltage Levels
- Enhanced power transfer capability

► Use on Distribution System & Load

- Reduction of system losses
- Improved voltage regulation at consumer terminals
- Released System capacity
- Improved power factor of the distribution system
- Raise Voltage Levels
- Reduction in energy cost for consumers



> Distribution Pole Top Equipment

Application

This equipment is designed to provide voltage support or minimize energy losses on distribution lines operating below 34.5 kV.

Specifications

Voltage Capacity: 2,400 to 34,500 Volts

Types: Switched (oil or vacuum) or Fixed configurations

Mounting: Aluminum rack compatible with 3, 6, 9, or 12 capacitors

Optional Add-ons:

Current Potential Transformer

Controller

Fuse Cutouts

Junction Box

> Available Options

Switches: Oil or vacuum; single or 3-phase.

Lightning Arresters: Surge protection.

Switching Controls: Automated by VARs, voltage, time, etc.

CPTs: 0.5–1.0 kVA for 120V control power.

Cutouts: Isolate bank during faults or manual shutdown.

> Pole Mounted Capacitor Bank Quotation Data Sheet

Total kVAR :	☐ (3600 kVAR Maximum)		
Line-to-Line System Voltage:			
Line to Neutral Voltage:			
System Connection:	☐ Grounded Wye ☐ Ungrounded Wye ☐ Delta		
BIL Rating:	☐ 95kV BIL ☐ 125kV BIL ☐ 150kV BIL		
Capacitor Configuration:	☐ kVAR per Capacitor ☐ Capacitor Voltage Rating	☐ 2 Bushings Standard ☐ 1 Bushing for 150kV BIL option for Grounded Wye	☐ 2 Bushings Standard
Switch BIL Rating:	☐ 95kV BIL ☐ 110kV BIL	☐ 125kV BIL ☐ 150kV BIL	
Switch Options:	☐ NO Switch ☐ Motor Operated Oil Switch ☐ Motor Operated Vacuum Switch		
Control Power Tranformer Options:	☐ NO CPT ☐ 0.5 kVA ☐ 1.0kVA ☐ 1.5kVA	☐ 2.0kVA ☐ 2.5kVA ☐ Other (Please Specify)	
Distribution Arresters:	☐ NO Arrester ☐ 3 kV (2.55kV MCOV) ☐ 6 kV (5.1kV MCOV) ☐ 9 kV (7.65kV MCOV)	☐ 10kV (8.4kV MCOV) ☐ 12kV (10.2kV MCOV) ☐ 15kV (12.7kV MCOV) ☐ 18kV (15.3kV MCOV)	☐ 21kV (17.0kV MCOV) ☐ 24kV (19.5kV MCOV) ☐ 27kV (22.0kV MCOV) ☐ 30kV (24.4kV MCOV) ☐ 36kV (29.0kV MCOV)
Meter Socket/J Box:	☐ NO Socket/Box ☐ 4 Jaw + Junction Box and 30 Ft Cable ☐ 6 Jaw + Junction Box and 30 Ft Cable ☐ Junction Box Only		
Reactors:	☐ NO Junction Box ☐ YES specify size		
Controller:	☐ NO Controller ☐ Other controller oprions (please specify)		

**KBK**

HIGH VOLTAGE CAPACITOR

> Pole Top Data Sheet Overview

- This document serves as a general reference for Kobn's pole-top product offerings. In most cases, Kobn can customize product configurations, sizes, and mounting to meet specific customer requirements.

> Quality Assurance Testing

- All capacitors and control switch functions undergo 100% electrical testing.
- Capacitors used in equipment are leak-tested three times during manufacturing, ensuring one of the industry's lowest leak rates.

> Shunt Capacitor Bank Equipment

- Delivers reactive power (VAR) or voltage support while mitigating harmonics in transmission and distribution systems.





> Kobn Capacitor Solutions

Kobn offers capacitor solutions ranging from 2.4KVAR to 600MVAR for systems between 12.47kV and 600kV, featuring fuseless (for >34.5kV), expulsion, internally fused, and current-limiting fusing options with customizable switching and protection configurations designed for seismic, high-wind, and high-altitude applications that provide power factor correction, voltage support, and harmonic mitigation including tuned shunt harmonic filter banks up to 600MVAR capacity.

> Metal Enclosed Capacitor Banks

Kobn's medium voltage capacitor banks (2.4kV-38kV) provide automated power factor correction for industrial/commercial/utility systems. Pre-assembled units feature outdoor/indoor enclosures (including public-area options) for voltage support and loss reduction. Custom configurations available.

> Series Capacitor Systems

Kobn's cost-effective series compensation boosts existing transmission capacity by 200-300%, addressing modern grid challenges:

Rising power demands

Renewable integration

12-18 month deployment

Patented dampening technologies

SSR filter innovation

Infrastructure optimization

Total kVAR :	☐ 600 MVAR Maximum
Line-to-Line System Voltage:	
System Connection:	☐ Grounded Wye ☐ Floating Wye ☐ Delta ☐ Double Wye
Fixed or switched bank	☐ Fixed ☐ If switched indicate number of steps ☐ kVAR per step
Substructure required (8 ft substructure is standard)	☐ No ☐ Yes
Space limitations	☐ Yes (define) ☐ No
Please specify required Options:	☐ CT ☐ PT ☐ Ground switch-phase ☐ Ground switch-neutral ☐ Ground switch- both ☐ NO Ground switch
Harmonic Filter bank	☐ NO ☐ Yes (Provide tuning point)



**Metal Enclosed
Capacitor Bank Equipment**



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