

Medium-Voltage Capacitors

(Standard, Heavy, Extra-Heavy and Ultra-Heavy-Duty Types)



General

Elgin Power Solutions' capacitors can be used for a large range of applications, including industrial, utilities & renewables and can be installed in several shunt and series capacitor banks and harmonic filters. Elgin's capacitors can be utilized for:

- Improve power factor
- Improve voltage profile
- Mitigate harmonic voltage and current
- Reduce system energy losses

Elgin's capacitors are manufactured and tested in accordance to IEEE, ANSI & IEC Standards. The factory is certified by ISO9001, ISO14001 & ISO45001. An in-house laboratory performs all applicable routine and type tests.

Construction Features

Elgin's capacitors include the following technical specifications:

- All-film technology.
- Glazed porcelain bushing.
- Internal discharge resistors to reduce terminal voltage, in accordance to IEEE, ANSI & IEC standards.
- Designed, manufactured, and tested to meet and exceed IEEE, ANSI & IEC standard requirements.
- Capacitor units can be externally fused, fuseless or internally fused.
- Available in standard-duty, heavy-duty, extra-heavy-duty and ultra-heavy-duty types.
- Biodegradable dielectric fluid WEMCOL II.
- Capacitance Tolerance: -0% to 10%.
- Installation height - up to 3,280 FT above sea level. Other heights are available upon request.



Capacitors Type

Standard-Duty Capacitors (SD):

Elgin SD capacitors are designed to withstand 110% of overvoltage under contingency and are recommended for distribution and transmission systems. All capacitors are designed for temperatures rating from -40°C to +55°C.

Heavy-Duty Capacitors (HD):

Elgin HD capacitors are designed to withstand 110% of continuous overvoltage and are recommended for applications requiring additional resistance and reliability. All HD capacitors are designed for temperatures rating from -40°C to +55°C.

Extra-Heavy-Duty Capacitors (EHD):

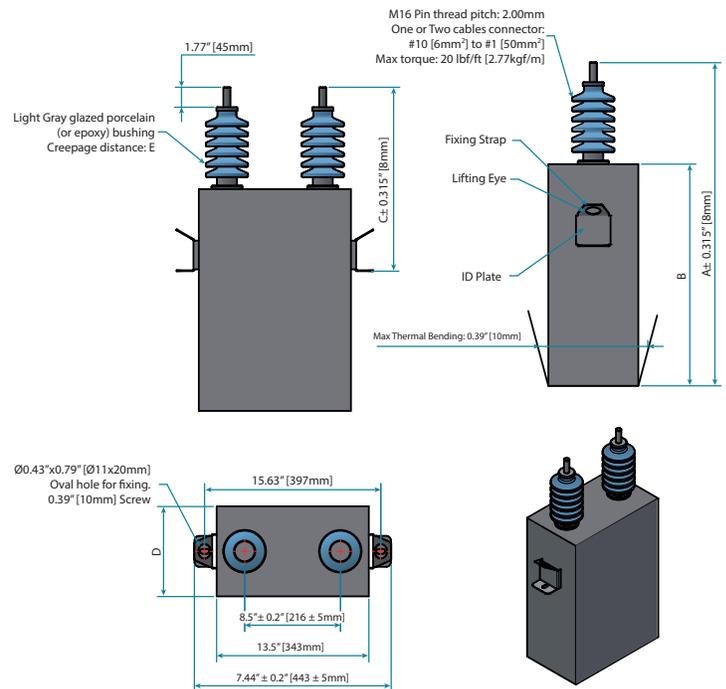
Elgin EHD capacitors are designed to withstand 125% of continuous overvoltage. EHD capacitors are more resistant to transients and harmonics from the system. All EHD capacitors are designed for temperatures rating from -40°C to +55°C.

Ultra-Heavy-Duty Capacitors (UHD):

Elgin UHD capacitors are designed to withstand 140% continuous overvoltage and recommended to systems under extreme harmonic influence. All UHD capacitors are designed for temperatures rating from -40°C to +55°C.

Example

Drawing shows typical HD fuseless capacitor



Comments:

1. Dimensions can be changed without previous warning
2. Other voltages, powers and capacitances may be considered under request
3. Dimension "C" can be modified under request
4. Capacitors over 15kV of rated voltage are usually manufactured with one bushing and one box connected terminal
5. Epoxy bushing, providing better mechanical rigidity and better resistance to leakings may be considered under request

Medium-Voltage Capacitors



Table 1 Ratings and part numbers for 60Hz medium voltage capacitors.

Power (kvar)		50 kvar		100 kvar		150 kvar	
Bushings		1 bushing	2 bushing	1 bushing	2 bushing	1 bushing	2 bushing
Voltage	BIL	Standard Duty Capacitors (110% overvoltage under contingency capacity)					
2400	95	*	*	*	*	*	*
2770	95	*	*	*	*	*	*
4160	95	SD5041601B	SD5041602B	SD10041601B	SD10041602B	SD15041601B	SD15041602B
4800	95	SD5048001B	SD5048002B	SD10048001B	SD10048002B	SD15048001B	SD15048002B
6640	95	SD5066401B	SD5066402B	SD10066401B	SD10066402B	SD15066401B	SD15066402B
7200	95	SD5072001B	SD5072002B	SD10072001B	SD10072002B	SD15072001B	SD15072002B
7620	95	SD5076201B	SD5076202B	SD10076201B	SD10076202B	SD15076201B	SD15076202B
7960	95	SD5079601B	SD5079602B	SD10079601B	SD10079602B	SD15079601B	SD15079602B
8320	95	SD5083201B	SD5083202B	SD10083201B	SD10083202B	SD15083201B	SD15083202B
9540	95	SD5095401B	SD5095402B	SD10095401B	SD10095402B	SD15095401B	SD15095402B
9960	95	SD5099601B	SD5099602B	SD10099601B	SD10099602B	SD15099601B	SD15099602B
11400	95	SD50114001B	SD50114002B	SD100114001B	SD100114002B	SD150114001B	SD150114002B
12470	95	SD50124701B	SD50124702B	SD100124701B	SD100124702B	SD150124701B	SD150124702B
13280	95	SD50132801B	SD50132802B	SD100132801B	SD100132802B	SD150132801B	SD150132802B
13800	95	SD50138001B	SD50138002B	SD100138001B	SD100138002B	SD150138001B	SD150138002B
14400	95	SD50144001B	SD50144002B	SD100144001B	SD100144002B	SD150144001B	SD150144002B
19920	150	SD50199201B	SD50199202B	SD100199201B	SD100199202B	SD150199201B	SD150199202B
21600	150	SD50216001B	*	SD100216001B	*	SD150216001B	*

Power (kvar)		200 kvar		300 kvar		400 kvar	
Bushings		1 bushing	2 bushing	1 bushing	2 bushing	1 bushing	2 bushing
Voltage	BIL	Standard Duty Capacitors (110% overvoltage under contingency capacity)					
2400	95	*	*	*	*	*	*
2770	95	*	*	*	*	*	*
4160	95	SD20041601B	SD20041602B	SD30041601B	SD30041602B	SD40041601B	SD40041602B
4800	95	SD20048001B	SD20048002B	SD30048001B	SD30048002B	SD40048001B	SD40048002B
6640	95	SD20066401B	SD20066402B	SD30066401B	SD30066402B	SD40066401B	SD40066402B
7200	95	SD20072001B	SD20072002B	SD30072001B	SD30072002B	SD40072001B	SD40072002B
7620	95	SD20076201B	SD20076202B	SD30076201B	SD30076202B	SD40076201B	SD40076202B
7960	95	SD20079601B	SD20079602B	SD30079601B	SD30079602B	SD40079601B	SD40079602B
8320	95	SD20083201B	SD20083202B	SD30083201B	SD30083202B	SD40083201B	SD40083202B
9540	95	SD20095401B	SD20095402B	SD30095401B	SD30095402B	SD40095401B	SD40095402B
9960	95	SD20099601B	SD20099602B	SD30099601B	SD30099602B	SD40099601B	SD40099602B
11400	95	SD200114001B	SD200114002B	SD300114001B	SD300114002B	SD400114001B	SD400114002B
12470	95	SD200124701B	SD200124702B	SD300124701B	SD300124702B	SD400124701B	SD400124702B
13280	95	SD200132801B	SD200132802B	SD300132801B	SD300132802B	SD400132801B	SD400132802B
13800	95	SD200138001B	SD200138002B	SD300138001B	SD300138002B	SD400138001B	SD400138002B
14400	95	SD200144001B	SD200144002B	SD300144001B	SD300144002B	SD400144001B	SD400144002B
19920	150	SD200199201B	SD200199202B	SD300199201B	SD300199202B	SD400199201B	SD400199202B
21600	150	SD200216001B	*	SD300216001B	*	SD400216001B	*

Medium-Voltage Capacitors



Power (kvar)		50 kvar		100 kvar		150 kvar	
Bushings		1 bushing	2 bushing	1 bushing	2 bushing	1 bushing	2 bushing
Voltage	BIL	Heavy Duty Capacitor (110% continuous overvoltage capacity)					
2400	95	*	*	*	*	*	*
2770	95	HD5027701B	HD5027702B	HD10027701B	HD10027702B	HD15027701B	HD15027702B
4160	95	HD5041601B	HD5041602B	HD10041601B	HD10041602B	HD15041601B	HD15041602B
4800	95	HD5048001B	HD5048002B	HD10048001B	HD10048002B	HD15048001B	HD15048002B
6640	95	HD5066401B	HD5066402B	HD10066401B	HD10066402B	HD15066401B	HD15066402B
7200	95	HD5072001B	HD5072002B	HD10072001B	HD10072002B	HD15072001B	HD15072002B
7620	95	HD5076201B	HD5076202B	HD10076201B	HD10076202B	HD15076201B	HD15076202B
7960	95	HD5079601B	HD5079602B	HD10079601B	HD10079602B	HD15079601B	HD15079602B
8320	95	HD5083201B	HD5083202B	HD10083201B	HD10083202B	HD15083201B	HD15083202B
9540	95	HD5095401B	HD5095402B	HD10095401B	HD10095402B	HD15095401B	HD15095402B
9960	95	HD5099601B	HD5099602B	HD10099601B	HD10099602B	HD15099601B	HD15099602B
11400	95	HD50114001B	HD50114002B	HD100114001B	HD100114002B	HD150114001B	HD150114002B
12470	95	HD50124701B	HD50124702B	HD100124701B	HD100124702B	HD150124701B	HD150124702B
13280	95	HD50132801B	HD50132802B	HD100132801B	HD100132802B	HD150132801B	HD150132802B
13800	95	HD50138001B	HD50138002B	HD100138001B	HD100138002B	HD150138001B	HD150138002B
14400	95	HD50144001B	HD50144002B	HD100144001B	HD100144002B	HD150144001B	HD150144002B
19920	150	HD50199201B	HD50199202B	*	HD100199202B	HD150199201B	HD150199202B
21600	150	HD50216001B	*	*	*	HD150216001B	*

Power (kvar)		200 kvar		300 kvar		400 kvar	
Bushings		1 bushing	2 bushing	1 bushing	2 bushing	1 bushing	2 bushing
Voltage	BIL	Heavy Duty Capacitor (110% continuous overvoltage capacity)					
2400	95	*	*	*	*	*	*
2770	95	HD20027701B	HD20027702B	HD30027701B	HD30027702B	HD40027701B	HD40027702B
4160	95	HD20041601B	HD20041602B	HD30041601B	HD30041602B	HD40041601B	HD40041602B
4800	95	HD20048001B	HD20048002B	HD30048001B	HD30048002B	HD40048001B	HD40048002B
6640	95	HD20066401B	HD20066402B	HD30066401B	HD30066402B	HD40066401B	HD40066402B
7200	95	HD20072001B	HD20072002B	HD30072001B	HD30072002B	HD40072001B	HD40072002B
7620	95	HD20076201B	HD20076202B	HD30076201B	HD30076202B	HD40076201B	HD40076202B
7960	95	HD20079601B	HD20079602B	HD30079601B	HD30079602B	HD40079601B	HD40079602B
8320	95	HD20083201B	HD20083202B	HD30083201B	HD30083202B	HD40083201B	HD40083202B
9540	95	HD20095401B	HD20095402B	HD30095401B	HD30095402B	HD40095401B	HD40095402B
9960	95	HD20099601B	HD20099602B	HD30099601B	HD30099602B	HD40099601B	HD40099602B
11400	95	HD200114001B	HD200114002B	HD300114001B	HD300114002B	HD400114001B	HD400114002B
12470	95	HD200124701B	HD200124702B	HD300124701B	HD300124702B	HD400124701B	HD400124702B
13280	95	HD200132801B	HD200132802B	HD300132801B	HD300132802B	HD400132801B	HD400132802B
13800	95	HD200138001B	HD200138002B	HD300138001B	HD300138002B	HD400138001B	HD400138002B
14400	95	HD200144001B	HD200144002B	HD300144001B	HD300144002B	HD400144001B	HD400144002B
19920	150	HD200199201B	HD200199202B	HD300199201B	HD300199202B	HD400199201B	HD400199202B
21600	150	HD200216001B	*	HD300216001B	*	HD400216001B	*

Medium-Voltage Capacitors



Power (kvar)		50 kvar		100 kvar		150 kvar	
Bushings		1 bushing	2 bushing	1 bushing	2 bushing	1 bushing	2 bushing
Voltage	BIL	Extra Heavy Duty Capacitor (125% continuous overvoltage capacity)					
2400	95	EHD5024001B	EHD5024002B	EHD10024001B	EHD10024002B	EHD15024001B	EHD15024002B
2770	95	EHD5027701B	EHD5027702B	EHD10027701B	EHD10027702B	EHD15027701B	EHD15027702B
4160	95	EHD5041601B	EHD5041602B	EHD10041601B	EHD10041602B	EHD15041601B	EHD15041602B
4800	95	EHD5048001B	EHD5048002B	EHD10048001B	EHD10048002B	EHD15048001B	EHD15048002B
6640	95	EHD5066401B	EHD5066402B	EHD10066401B	EHD10066402B	EHD15066401B	EHD15066402B
7200	95	EHD5072001B	EHD5072002B	EHD10072001B	EHD10072002B	EHD15072001B	EHD15072002B
7620	95	EHD5076201B	EHD5076202B	EHD10076201B	EHD10076202B	EHD15076201B	EHD15076202B
7960	95	EHD5079601B	EHD5079602B	EHD10079601B	EHD10079602B	EHD15079601B	EHD15079602B
8320	95	EHD5083201B	EHD5083202B	EHD10083201B	EHD10083202B	EHD15083201B	EHD15083202B
9540	95	EHD5095401B	EHD5095402B	EHD10095401B	EHD10095402B	EHD15095401B	EHD15095402B
9960	95	EHD5099601B	EHD5099602B	EHD10099601B	EHD10099602B	EHD15099601B	EHD15099602B
11400	95	EHD50114001B	EHD50114002B	EHD100114001B	EHD100114002B	EHD150114001B	EHD150114002B
12470	95	EHD50124701B	EHD50124702B	EHD100124701B	EHD100124702B	EHD150124701B	EHD150124702B
13280	95	EHD50132801B	EHD50132802B	EHD100132801B	EHD100132802B	EHD150132801B	EHD150132802B
13800	95	EHD50138001B	EHD50138002B	EHD100138001B	EHD100138002B	EHD150138001B	EHD150138002B
14400	95	EHD50144001B	EHD50144002B	EHD100144001B	EHD100144002B	EHD150144001B	EHD150144002B
19920	150	EHD50199201B	EHD50199202B	*	EHD100199202B	EHD150199201B	EHD150199202B
21600	150	EHD50216001B	*	*	*	EHD150216001B	*

Power (kvar)		200 kvar		300 kvar		400 kvar	
Bushings		1 bushing	2 bushing	1 bushing	2 bushing	1 bushing	2 bushing
Voltage	BIL	Extra Heavy Duty Capacitor (125% continuous overvoltage capacity)					
2400	95	EHD20024001B	EHD20024002B	EHD30024001B	EHD30024002B	EHD40024001B	EHD40024002B
2770	95	EHD20027701B	EHD20027702B	EHD30027701B	EHD30027702B	EHD40027701B	EHD40027702B
4160	95	EHD20041601B	EHD20041602B	EHD30041601B	EHD30041602B	EHD40041601B	EHD40041602B
4800	95	EHD20048001B	EHD20048002B	EHD30048001B	EHD30048002B	EHD40048001B	EHD40048002B
6640	95	EHD20066401B	EHD20066402B	EHD30066401B	EHD30066402B	EHD40066401B	EHD40066402B
7200	95	EHD20072001B	EHD20072002B	EHD30072001B	EHD30072002B	EHD40072001B	EHD40072002B
7620	95	EHD20076201B	EHD20076202B	EHD30076201B	EHD30076202B	EHD40076201B	EHD40076202B
7960	95	EHD20079601B	EHD20079602B	EHD30079601B	EHD30079602B	EHD40079601B	EHD40079602B
8320	95	EHD20083201B	EHD20083202B	EHD30083201B	EHD30083202B	EHD40083201B	EHD40083202B
9540	95	EHD20095401B	EHD20095402B	EHD30095401B	EHD30095402B	EHD40095401B	EHD40095402B
9960	95	EHD20099601B	EHD20099602B	EHD30099601B	EHD30099602B	EHD40099601B	EHD40099602B
11400	95	EHD200114001B	EHD200114002B	EHD300114001B	EHD300114002B	EHD400114001B	EHD400114002B
12470	95	EHD200124701B	EHD200124702B	EHD300124701B	EHD300124702B	EHD400124701B	EHD400124702B
13280	95	EHD200132801B	EHD200132802B	EHD300132801B	EHD300132802B	EHD400132801B	EHD400132802B
13800	95	EHD200138001B	EHD200138002B	EHD300138001B	EHD300138002B	EHD400138001B	EHD400138002B
14400	95	EHD200144001B	EHD200144002B	EHD300144001B	EHD300144002B	EHD400144001B	EHD400144002B
19920	150	EHD200199201B	EHD200199202B	EHD300199201B	EHD300199202B	EHD400199201B	EHD400199202B
21600	150	EHD200216001B	*	EHD300216001B	*	EHD400216001B	*

Medium-Voltage Capacitors



Power (kvar)		50 kvar		100 kvar		150 kvar	
Bushings		1 bushing	2 bushing	1 bushing	2 bushing	1 bushing	2 bushing
Voltage	BIL	Ultra Heavy Duty Capacitor (140% continuous overvoltage capacity)					
2400	95	UHD5024001B	UHD5024002B	UHD10024001B	UHD10024002B	UHD15024001B	UHD15024002B
2770	95	UHD5027701B	UHD5027702B	UHD10027701B	UHD10027702B	UHD15027701B	UHD15027702B
4160	95	UHD5041601B	UHD5041602B	UHD10041601B	UHD10041602B	UHD15041601B	UHD15041602B
4800	95	UHD5048001B	UHD5048002B	UHD10048001B	UHD10048002B	UHD15048001B	UHD15048002B
6640	95	UHD5066401B	UHD5066402B	UHD10066401B	UHD10066402B	UHD15066401B	UHD15066402B
7200	95	UHD5072001B	UHD5072002B	UHD10072001B	UHD10072002B	UHD15072001B	UHD15072002B
7620	95	UHD5076201B	UHD5076202B	UHD10076201B	UHD10076202B	UHD15076201B	UHD15076202B
7960	95	UHD5079601B	UHD5079602B	UHD10079601B	UHD10079602B	UHD15079601B	UHD15079602B
8320	95	UHD5083201B	UHD5083202B	UHD10083201B	UHD10083202B	UHD15083201B	UHD15083202B
9540	95	UHD5095401B	UHD5095402B	UHD10095401B	UHD10095402B	UHD15095401B	UHD15095402B
9960	95	UHD5099601B	UHD5099602B	UHD10099601B	UHD10099602B	UHD15099601B	UHD15099602B
11400	95	UHD50114001B	UHD50114002B	UHD100114001B	UHD100114002B	UHD150114001B	UHD150114002B
12470	95	UHD50124701B	UHD50124702B	UHD100124701B	UHD100124702B	UHD150124701B	UHD150124702B
13280	95	UHD50132801B	UHD50132802B	UHD100132801B	UHD100132802B	UHD150132801B	UHD150132802B
13800	95	UHD50138001B	UHD50138002B	UHD100138001B	UHD100138002B	UHD150138001B	UHD150138002B
14400	95	UHD50144001B	UHD50144002B	UHD100144001B	UHD100144002B	UHD150144001B	UHD150144002B
19920	150	UHD50199201B	UHD50199202B	UHD100199201B	UHD100199202B	UHD150199201B	UHD150199202B
21600	150	UHD50216001B	*	UHD100216001B	*	UHD150216001B	*

Power (kvar)		200 kvar		300 kvar		400 kvar	
Bushings		1 bushing	2 bushing	1 bushing	2 bushing	1 bushing	2 bushing
Voltage	BIL	Ultra Heavy Duty Capacitor (140% continuous overvoltage capacity)					
2400	95	UHD20024001B	UHD20024002B	UHD30024001B	UHD30024002B	UHD40024001B	UHD40024002B
2770	95	UHD20027701B	UHD20027702B	UHD30027701B	UHD30027702B	UHD40027701B	UHD40027702B
4160	95	UHD20041601B	UHD20041602B	UHD30041601B	UHD30041602B	UHD40041601B	UHD40041602B
4800	95	UHD20048001B	UHD20048002B	UHD30048001B	UHD30048002B	UHD40048001B	UHD40048002B
6640	95	UHD20066401B	UHD20066402B	UHD30066401B	UHD30066402B	UHD40066401B	UHD40066402B
7200	95	UHD20072001B	UHD20072002B	UHD30072001B	UHD30072002B	UHD40072001B	UHD40072002B
7620	95	UHD20076201B	UHD20076202B	UHD30076201B	UHD30076202B	UHD40076201B	UHD40076202B
7960	95	UHD20079601B	UHD20079602B	UHD30079601B	UHD30079602B	UHD40079601B	UHD40079602B
8320	95	UHD20083201B	UHD20083202B	UHD30083201B	UHD30083202B	UHD40083201B	UHD40083202B
9540	95	UHD20095401B	UHD20095402B	UHD30095401B	UHD30095402B	UHD40095401B	UHD40095402B
9960	95	UHD20099601B	UHD20099602B	UHD30099601B	UHD30099602B	UHD40099601B	UHD40099602B
11400	95	UHD200114001B	UHD200114002B	UHD300114001B	UHD300114002B	UHD400114001B	UHD400114002B
12470	95	UHD200124701B	UHD200124702B	UHD300124701B	UHD300124702B	UHD400124701B	UHD400124702B
13280	95	UHD200132801B	UHD200132802B	UHD300132801B	UHD300132802B	UHD400132801B	UHD400132802B
13800	95	UHD200138001B	UHD200138002B	UHD300138001B	UHD300138002B	UHD400138001B	UHD400138002B
14400	95	UHD200144001B	UHD200144002B	UHD300144001B	UHD300144002B	UHD400144001B	UHD400144002B
19920	150	UHD200199201B	UHD200199202B	UHD300199201B	UHD300199202B	UHD400199201B	UHD400199202B
21600	150	UHD200216001B	*	UHD300216001B	*	UHD400216001B	*

*Capacitors might not be available at this specific duty. Factory must be checked for special options.