

## Medium Voltage Standard-Duty, Heavy-Duty, and Extreme-Duty Single-Phase, Unfused Capacitor Units and Accessories

230-10

Cooper Power Systems all-film, unfused capacitors (Figure 1) feature extended-foil elements, solderless connections, and laser-cut aluminum foil (folded foil optional) in a high stacking factor design. Designed, manufactured, and tested to meet or exceed the requirements of IEEE Std C18™-2002 standard (Heavy-Duty and Extreme-Duty capacitors tested to IEEE Std C18™-2012 standard), these capacitors are a simple, economical, and reliable source of reactive power on outdoor or indoor electric power systems for:

- Improved power factor
- System capacity release
- Reduced losses
- Improved power flow capability
- Voltage support
- Harmonic filtering
- Surge suppression

Power capacitors can be installed singly or in factory-assembled switched or unswitched banks in:

- Pole-Mounted racks
- Substation banks
- Metal enclosures
- Mobile Capacitor Banks

Designs meeting the requirements of International Electrotechnical Commission (IEC), Canadian Standards Association (CSA), Brazilian Association of Technical Standards (ABNT), and other national and international standards are available.

Cooper Power Systems all-film, extended foil/solderless capacitors with a high stacking factor provide:

- Low dielectric losses (0.05 watt/kvar)
- Personnel safety through a superior definite tank-rupture characteristic
- Low capacitance change with respect to temperature
- Tank rupture curves defined through 10 kA for Standard- and Heavy-Duty and 15 kA for Extreme-Duty
- Superior electrical performance and reliability



Figure 1.  
Single-phase, all-film capacitor units.

- Proprietary Edisol™ VI dielectric fluid that provides the best balance between low and high ambient temperature operation

### STANDARD-DUTY (SD TYPE) CAPACITORS

Capacitors are intended to be operated at or below their rated voltage. All capacitors are designed with a continuous overvoltage capability of 110% of rated voltage and meet IEEE Std 18™-2002 standard. This overvoltage capability is to allow the capacitor to withstand bank and system contingencies such as bank unbalance and system voltages higher than the rated maximum continuous operating voltage.

Standard-Duty capacitors are designed for typical utility transmission and distribution applications.

### Standard-Duty Ratings

- 110% continuous rms overvoltage capability
- 10 kA fault handling capability
- Standard temperature rating -40 to +55 °C (-50 °C available, consult factory)

Table 2 lists the ratings and catalog numbers for the Standard-Duty

single- and double-bushing capacitors. Other unit kvar, voltage, frequency, and BIL ratings are available.

### HEAVY-DUTY (HD TYPE) CAPACITORS

Heavy-Duty designs meet or exceed IEEE Std C18™-2012 standards. Heavy-Duty capacitors are designed for applications where higher reliability is desired (Ex: Transmission Capacitor Banks). The Heavy-Duty Capacitor is more resistant to the effects of higher transients, harmonics, and voltage excursions than the Standard-Duty Capacitor.

### Heavy-Duty Ratings

- 125% continuous rms overvoltage capability
- 135% peak overvoltage capability
- Tank rupture curve defined through 10 kA
- Standard temperature rating -40 to +55 °C (-50 °C available, consult factory)
- Meets Performance Test requirements of IEEE Std C18™-2012 standard

Table 3 lists the ratings and catalog numbers for the Heavy-Duty single-

and double-bushing capacitors. Other unit kvar, voltage, frequency, and BIL ratings are available.

## EXTREME-DUTY (XD TYPE) CAPACITORS

Extreme-Duty capacitors are designed to exceed the IEEE Std C18™-2012 standard. These capacitors are designed for the most extreme harmonic environments, and are the perfect choice for application on systems with unknown contingencies (Ex: Industrial applications).

### Extreme-Duty Ratings

- 125% continuous rms over-voltage capability
- 135% peak overvoltage capability
- Tank rupture curve defined through 15 kA
- -50 to +55 °C temperature design standard
- Proprietary routine testing designed to increase reliability

Table 4 lists the ratings and catalog numbers for the Extreme-Duty single- and double-bushing capacitors. Other unit kvar, voltage, frequency, and BIL ratings are available.

## CONSTRUCTION FEATURES

Construction features of Cooper Power Systems power capacitors include:

- Stainless-steel tank with light-gray finish for resistance to severely corrosive atmospheres
- Light-gray, porcelain bushings; glazed for high strength and durability and hermetically sealed to the capacitor tank
- Stainless-steel mounting brackets with industry-standard 15.62-in. mounting center for unit interchangeability; underside of each bracket is unpainted for positive grounding
- Parallel-groove terminals accommodate copper or aluminum conductors from No. 8 solid to No. 1 stranded

- Parallel-groove connectors are supplied on all capacitors sold as individual units. The parallel groove connector should be removed and discarded on capacitors used as replacements in substation bank applications on which a leader ejection spring and associated hardware are used with an expulsion fuse. See *Service Information S230-30-3 Expulsion Fuse Installation Instructions* for detailed information.
- Internal discharge resistors that reduce terminal voltage to 50 volts or less within five minutes after the capacitor has been disconnected. Other discharge criteria are available.
- Stainless-steel nameplate includes all required information per the applicable standard. In addition and for ease of maintenance, both the nominal capacitance and the measured capacitance are included on each nameplate.
- Blue non-PCB decal

## ADDITIONAL REFERENCES

Refer to the following reference literature for application recommendations.

**S230-10-1**, Medium-Voltage, Single-Phase Capacitor Installation and Maintenance Instructions

**R230-91-1**, Tank Rupture Curves for SD & HD Type Capacitors

**R230-91-2**, Tank Rupture Curves for XD Type Capacitors

**230-20**, Pole-Mounted Racks with Single-Phase Capacitors

**TABLE 1**  
Bushing Characteristics and Weights

BIL (kV)	Creepage Distance (in.)	Strike Distance (in.)	60-Hz Withstand	
			60-Sec. Dry (kV)	10-Sec. Wet (kV)
95*	12.00	6.25	35	30
150**	22.00	9.50	60	50
200	32.00	14.00	80	75

\* Bushings furnished on standard capacitors shown in Tables 2, 3, and 4. The bushings used in 95 kV BIL rated capacitors are also capable of meeting 110 kV BIL and are used in 110 kV BIL rated capacitors.

\*\* The bushings used in 150 kV BIL rated capacitors are also used in 125 kV BIL rated capacitor designs.

**TABLE 2**  
**Ratings and Catalog Numbers for 60 Hz Standard-Duty Single- and Double-Bushing Capacitors**

Ratings		50 kvar Capacitors		100 kvar Capacitors		150 kvar Capacitors		200 kvar Capacitors	
Voltage (volts)	BIL (kV)	Double - Bushing	Single - Bushing	Double - Bushing	Single - Bushing	Double - Bushing	Single - Bushing	Double - Bushing	Single - Bushing
2400	95	CEP120A1	CEP120B1	CEP131A1	CEP131B1	CEP132A1	CEP132B1	CEP140A1	CEP140B1
2770*	95	*	*	*	*	*	*	*	*
4160	95	CEP120A3	CEP120B3	CEP131A3	CEP131B3	CEP132A3	CEP132B3	CEP140A3	CEP140B3
4800	95	CEP120A4	CEP120B4	CEP131A4	CEP131B4	CEP132A4	CEP132B4	CEP140A4	CEP140B4
6640	95	CEP120A5	CEP120B5	CEP131A5	CEP131B5	CEP132A5	CEP132B5	CEP140A5	CEP140B5
7200	95	CEP120A6	CEP120B6	CEP131A6	CEP131B6	CEP132A6	CEP132B6	CEP140A6	CEP140B6
7620	95	CEP120A7	CEP120B7	CEP131A7	CEP131B7	CEP132A7	CEP132B7	CEP140A7	CEP140B7
7960	95	CEP120A8	CEP120B8	CEP131A8	CEP131B8	CEP132A8	CEP132B8	CEP140A8	CEP140B8
8320	95	CEP124M7	CEP123M3	CEP126M4	CEP125M3	CEP128M6	CEP127M15	CEP130M13	CEP129M1
9540	95	CEP124M19	CEP123M4	CEP126M24	CEP125M4	CEP128M21	CEP127M21	CEP130M30	CEP129M31
9960	95	CEP120A9	CEP120B9	CEP131A9	CEP131B9	CEP132A9	CEP132B9	CEP140A9	CEP140B9
11400	95	CEP124M8	CEP123M5	CEP126M25	CEP125M19	CEP128M13	CEP127M22	CEP130M31	CEP129M19
	125	-	-	-	-	-	CEP127M27	CEP130M32	-
	150	-	-	-	CEP125M23	-	-	-	CEP129M20
12470	95	CEP120A10	CEP120B10	CEP131A10	CEP131B10	CEP132A10	CEP132B10	CEP140A10	CEP140B10
	125	CEP125M9	-	CEP126M3	-	CEP128M11	-	CEP130M9	-
	150	-	CEP123B6	-	CEP130B6	-	CEP139B6	-	CEP143B6
13280	95	CEP120A11	CEP120B11	CEP131A11	CEP131B11	CEP132A11	CEP132B11	CEP140A11	CEP140B11
	125	CEP124M10	-	CEP126M9	-	CEP128M9	-	CEP130M7	-
	150	-	CEP132B7	-	CEP130B7	-	CEP139B7	-	CEP143B7
13800	95	CEP120A12	CEP120B12	CEP131A12	CEP131B12	CEP132A12	CEP132B12	CEP140A12	CEP140B12
	125	CEP124M11	-	CEP126M20	-	CEP128M14	-	CEP130M2	-
	150	-	CEP123B8	-	CEP130B8	-	CEP139B8	-	CEP143B8
14400	95	CEP120A13	CEP120B13	CEP131A13	CEP131B13	CEP132A13	CEP132B13	CEP140A13	CEP140B13
	125	CEP124M2	-	CEP126M1	-	CEP128M5	-	CEP130M1	-
	150	-	CEP123B9	-	CEP130B9	-	CEP139B9	-	CEP143B9
15125	150	-	CEP123M6	-	CEP125M1	-	CEP127M23	-	CEP129M12
19920	150	-	-	-	CEP134B4	-	CEP133B4	-	CEP145B4
20800	150	-	-	-	CEP125M20	-	CEP127M28	-	CEP129M38
21600	150	-	-	-	CEP134B5	-	CEP133B5	-	CEP145B5
22130	150	-	-	-	CEP125M31	-	CEP127M29	-	CEP129M23
22800	150	-	-	-	CEP125M30	-	-	-	CEP129M10

\* See Table 3 for Heavy-Duty (HD) ratings and catalog numbers for this voltage class.

**TABLE 2 (continued)****Ratings and Catalog Numbers for 60 Hz Standard-Duty Single- and Double-Bushing Capacitors**

Ratings		300 kvar Capacitors		400 kvar Capacitors		500 kvar Capacitors		600 kvar Capacitors	
Voltage (volts)	BIL (kV)	Double - Bushing	Single - Bushing						
2400	95	–	–	–	–	–	–	–	–
2770	95	–	–	–	–	–	–	–	–
4160	95	–	–	–	–	–	–	–	–
4800	95	CEP132M34	–	–	–	–	–	–	–
6640	95	CEP160A5	CEP160B5	CEP170A5	CEP170B5	CEP180A5	CEP180B5	CEP190A5	CEP190B5
7200	95	CEP160A6	CEP160B6	CEP170A6	CEP170B6	CEP180A6	CEP180B6	CEP190A6	CEP190B6
7620	95	CEP160A7	CEP160B7	CEP170A7	CEP170B7	CEP180A7	CEP180B7	CEP190A7	CEP190B7
7960	95	CEP160A8	CEP160B8	CEP170A8	CEP170B8	CEP180A8	CEP180B8	CEP190A8	CEP190B8
8320	95	CEP132M9	CEP131M8	CEP134M10	CEP133M13	CEP150M1	CEP149M1	–	–
9540	95	CEP132M22	CEP131M22	CEP134M6	CEP133M14	CEP150M5	CEP149M2	–	–
9960	95	CEP160A9	CEP160B9	CEP170A9	CEP170B9	CEP180A9	CEP180B9	CEP190A9	CEP190B9
11400	95	CEP132M18	CEP131M23	CEP134M17	CEP133M15	CEP150M6	CEP149M3	–	–
	125	–	–	–	–	CEP150M7	–	–	–
	150	–	CEP131M28	–	CEP133M29	–	CEP149M4	–	–
12470	95	CEP160A10	CEP160B10	CEP170A10	CEP170B10	CEP180A10	CEP180B10	CEP190A10	CEP190B10
	125	CEP132M14	–	CEP134M4	–	–	–	–	–
	150	–	CEP163B6	–	CEP173B6	–	CEP183B6	CEP193A6	CEP193B6
13280	95	CEP160A11	CEP160B11	CEP170A11	CEP170B11	CEP180A11	CEP180B11	CEP190A11	CEP190B11
	125	CEP132M10	–	CEP134M8	–	–	–	–	–
	150	–	CEP163B7	–	CEP173B7	–	CEP183B7	CEP193A7	CEP193B7
13800	95	CEP160A12	CEP160B12	CEP170A12	CEP170B12	CEP180A12	CEP180B12	CEP190A12	CEP190B12
	125	CEP132M13	–	CEP134M9	–	–	–	–	–
	150	–	CEP163B8	–	CEP173B8	–	CEP183B8	CEP193A8	CEP193B8
14400	95	CEP160A13	CEP160B13	CEP170A13	CEP170B13	CEP180A13	CEP180B13	CEP190A13	CEP190B13
	125	CEP132M5	–	CEP134M2	–	CEP150M10	–	–	–
	150	–	CEP163B9	–	CEP173B9	–	CEP183B9	CEP193A9	CEP193B9
15125	150	–	CEP131M24	–	CEP133M16	–	CEP149M5	–	–
19920	150	–	CEP165B4	–	CEP175B4	–	CEP185B4	–	CEP195B4
20800	150	–	CEP131M9	–	CEP133M17	–	CEP149M6	–	–
21600	150	–	CEP165B5	–	CEP175B5	–	CEP185B5	–	CEP195B5
22130	150	–	CEP131M25	–	CEP133M20	–	CEP149M13	–	–
22800	150	–	CEP131M42	–	CEP133M11	–	CEP149M7	–	–

TABLE 3

Ratings and Catalog Numbers for 60 Hz Heavy-Duty Single- and Double-Bushing Capacitors

Ratings		50 kvar Capacitors		100 kvar Capacitors		150 kvar Capacitors		200 kvar Capacitors	
Voltage (volts)	BIL (kV)	Double - Bushing	Single - Bushing	Double - Bushing	Single - Bushing	Double - Bushing	Single - Bushing	Double - Bushing	Single - Bushing
2400	95	CEP420A1	CEP420B1	CEP431A1	CEP431B1	CEP432A1	CEP432B1	CEP440A1	CEP440B1
2770	95	CEP420A2	CEP420B2	CEP431A2	CEP431B2	CEP432A2	CEP432B2	CEP440A2	CEP440B2
4160	95	CEP420A3	CEP420B3	CEP431A3	CEP431B3	CEP432A3	CEP432B3	CEP440A3	CEP440B3
4800	95	CEP420A4	CEP420B4	CEP431A4	CEP431B4	CEP432A4	CEP432B4	CEP440A4	CEP440B4
6640	95	CEP420A5	CEP420B5	CEP431A5	CEP431B5	CEP432A5	CEP432B5	CEP440A5	CEP440B5
7200	95	CEP420A6	CEP420B6	CEP431A6	CEP431B6	CEP432A6	CEP432B6	CEP440A6	CEP440B6
7620	95	CEP420A7	CEP420B7	CEP431A7	CEP431B7	CEP432A7	CEP432B7	CEP440A7	CEP440B7
7960	95	CEP420A8	CEP420B8	CEP431A8	CEP431B8	CEP432A8	CEP432B8	CEP440A8	CEP440B8
8320	95	CEP424M7	CEP423M3	CEP426M4	CEP425M3	CEP428M6	CEP427M15	CEP430M13	CEP429M1
9540	95	CEP424M19	CEP423M4	CEP426M24	CEP425M4	CEP428M21	CEP427M21	CEP430M30	CEP429M31
9960	95	CEP420A9	CEP420B9	CEP431A9	CEP431B9	CEP432A9	CEP432B9	CEP440A9	CEP440B9
11400	95	CEP424M8	CEP423M5	CEP426M25	CEP425M19	CEP428M13	CEP427M22	CEP430M31	CEP429M19
	125	-	-	-	-	-	CEP427M27	CEP430M32	-
	150	-	-	-	CEP425M23	-	-	-	CEP429M20
12470	95	CEP420A10	CEP420B10	CEP431A10	CEP431B10	CEP432A10	CEP432B10	CEP440A10	CEP440B10
	125	CEP425M9	-	CEP426M3	-	CEP428M11	-	CEP430M9	-
	150	-	CEP423B6	-	CEP430B6	-	CEP439B6	-	CEP443B6
13280	95	CEP420A11	CEP420B11	CEP431A11	CEP431B11	CEP432A11	CEP432B11	CEP440A11	CEP440B11
	125	CEP424M10	-	CEP426M9	-	CEP428M9	-	CEP430M7	-
	150	-	CEP432B7	-	CEP430B7	-	CEP439B7	-	CEP443B7
13800	95	CEP420A12	CEP420B12	CEP431A12	CEP431B12	CEP432A12	CEP432B12	CEP440A12	CEP440B12
	125	CEP424M11	-	CEP426M20	-	CEP428M14	-	CEP430M2	-
	150	-	CEP423B8	-	CEP430B8	-	CEP439B8	-	CEP443B8
14400	95	CEP420A13	CEP420B13	CEP431A13	CEP431B13	CEP432A13	CEP432B13	CEP440A13	CEP440B13
	125	CEP424M2	-	CEP426M1	-	CEP428M5	-	CEP430M1	-
	150	-	CEP423B9	-	CEP430B9	-	CEP439B9	-	CEP443B9
15125	150	-	CEP423M6	-	CEP425M1	-	CEP427M23	-	CEP429M12
19920	150	-	-	-	CEP434B4	-	CEP433B4	-	CEP445B4
20800	150	-	-	-	CEP425M20	-	CEP427M28	-	CEP429M38
21600	150	-	-	-	CEP434B5	-	CEP433B5	-	CEP445B5
22130	150	-	-	-	CEP425M31	-	CEP427M29	-	CEP429M23
22800	150	-	-	-	CEP425M30	-	-	-	CEP429M10

**TABLE 3 (continued)****Ratings and Catalog Numbers for 60 Hz Heavy-Duty Single- and Double-Bushing Capacitors**

Ratings		300 kvar Capacitors		400 kvar Capacitors		500 kvar Capacitors		600 kvar Capacitors	
Voltage (volts)	BIL (kV)	Double - Bushing	Single - Bushing						
2400	95	—	—	—	—	—	—	—	—
2770	95	—	—	—	—	—	—	—	—
4160	95	—	—	—	—	—	—	—	—
4800	95	CEP432M34	—	—	—	—	—	—	—
6640	95	CEP460A5	CEP460B5	CEP470A5	CEP470B5	CEP480A5	CEP480B5	CEP490A5	CEP490B5
7200	95	CEP460A6	CEP460B6	CEP470A6	CEP470B6	CEP480A6	CEP480B6	CEP490A6	CEP490B6
7620	95	CEP460A7	CEP460B7	CEP470A7	CEP470B7	CEP480A7	CEP480B7	CEP490A7	CEP490B7
7960	95	CEP460A8	CEP460B8	CEP470A8	CEP470B8	CEP480A8	CEP480B8	CEP490A8	CEP490B8
8320	95	CEP432M9	CEP431M8	CEP434M10	CEP433M13	CEP450M1	CEP449M1	—	—
9540	95	CEP432M22	CEP431M22	CEP434M6	CEP433M14	CEP450M5	CEP449M2	—	—
9960	95	CEP460A9	CEP460B9	CEP470A9	CEP470B9	CEP480A9	CEP480B9	CEP490A9	CEP490B9
11400	95	CEP432M18	CEP431M23	CEP434M17	CEP433M15	CEP450M6	CEP449M3	—	—
	125	—	—	—	—	CEP450M7	—	—	—
	150	—	CEP431M28	—	CEP433M29	—	CEP449M4	—	—
12470	95	CEP460A10	CEP460B10	CEP470A10	CEP470B10	CEP480A10	CEP480B10	CEP490A10	CEP490B10
	125	CEP432M14	—	CEP434M4	—	—	—	—	—
	150	—	CEP463B6	—	CEP473B6	—	CEP483B6	—	—
13280	95	CEP460A11	CEP460B11	CEP470A11	CEP470B11	CEP480A11	CEP480B11	CEP490A11	CEP490B11
	125	CEP432M10	—	CEP434M8	—	—	—	—	—
	150	—	CEP463B7	—	CEP473B7	—	CEP483B7	—	CEP493B7
13800	95	CEP460A12	CEP460B12	CEP470A12	CEP470B12	CEP480A12	CEP480B12	CEP490A12	CEP490B12
	125	CEP432M13	—	CEP434M9	—	—	—	—	—
	150	—	CEP463B8	—	CEP473B8	—	CEP483B8	—	CEP493B8
14400	95	CEP460A13	CEP460B13	CEP470A13	CEP470B13	CEP480A13	CEP480B13	CEP490A13	CEP490B13
	125	CEP432M5	—	CEP434M2	—	CEP450M10	—	—	—
	150	—	CEP463B9	—	CEP473B9	—	CEP483B9	—	CEP493B9
15125	150	—	CEP431M24	—	CEP433M16	—	CEP449M5	—	—
19920	150	—	CEP465B4	—	CEP475B4	—	CEP485B4	—	CEP495B4
20800	150	—	CEP431M9	—	CEP433M17	—	CEP449M6	—	—
21600	150	—	CEP465B5	—	CEP475B5	—	CEP485B5	—	CEP495B5
22130	150	—	CEP431M25	—	CEP433M20	—	CEP449M13	—	—
22800	150	—	CEP431M42	—	CEP433M11	—	CEP449M7	—	—

**TABLE 4**  
**Ratings and Catalog Numbers for Extreme-Duty Capacitors**

Ratings		50 kvar Capacitors		100 kvar Capacitors		150 kvar Capacitors		200 kvar Capacitors	
Voltage (volts)	BIL (kV)	Double-Bushing	Single-Bushing	Double-Bushing	Single-Bushing	Double-Bushing	Single-Bushing	Double-Bushing	Single-Bushing
2400	95	CEP320A1	CEP320B1	CEP331A1	CEP331B1	CEP332A1	CEP332B1	CEP340A1	CEP340B1
2770	95	CEP320A2	CEP320B2	CEP331A2	CEP331B2	CEP332A2	CEP332B2	CEP340A2	CEP340B2
4160	95	CEP320A3	CEP320B3	CEP331A3	CEP331B3	CEP332A3	CEP332B3	CEP340A3	CEP340B3
4800	95	CEP320A4	CEP320B4	CEP331A4	CEP331B4	CEP332A4	CEP332B4	CEP340A4	CEP340B4
6640	95	CEP320A5	CEP320B5	CEP331A5	CEP331B5	CEP332A5	CEP332B5	CEP340A5	CEP340B5
7200	95	CEP320A6	CEP320B6	CEP331A6	CEP331B6	CEP332A6	CEP332B6	CEP340A6	CEP340B6
7620	95	CEP320A7	CEP320B7	CEP331A7	CEP331B7	CEP332A7	CEP332B7	CEP340A7	CEP340B7
7960	95	CEP320A8	CEP320B8	CEP331A8	CEP331B8	CEP332A8	CEP332B8	CEP340A8	CEP340B8
8320	95	CEP324M7	CEP323M3	CEP326M4	CEP325M3	CEP328M6	CEP327M15	CEP330M13	CEP329M1
9540	95	CEP324M4	CEP323M4	CEP326M24	CEP325M4	CEP328M2	CEP327M21	CEP330M30	CEP329M31
9960	95	CEP320A9	CEP320B9	CEP331A9	CEP331B9	CEP332A9	CEP332B9	CEP340A9	CEP340B9
11400	95	CEP324M8	CEP323M5	CEP326M25	CEP325M19	CEP328M13	CEP327M22	CEP330M31	CEP329M19
	125	-	-	-	-	-	-	CEP330M32	-
	150	-	-	-	-	-	-	-	CEP329M20
12470	95	CEP320A10	CEP320B10	CEP331A10	CEP331B10	CEP332A10	CEP332B10	CEP340A10	CEP340B10
	125	CEP324M9	-	CEP326M3	-	CEP328M11	-	CEP330M9	-
	150	-	CEP323B6	-	CEP330B6	-	CEP339B6	-	CEP343B6
13280	95	CEP320A11	CEP320B11	CEP331A11	CEP331B11	CEP332A11	CEP332B11	CEP340A11	CEP340B11
	125	CEP324M10	-	CEP326M9	-	CEP328M9	-	CEP330M9	-
	150	-	CEP323B7	-	CEP330B7	-	CEP339B7	-	CEP343B7
13800	95	CEP320A12	CEP320B12	CEP331A12	CEP331B12	CEP332A12	CEP332B12	CEP340A12	CEP340B12
	125	CEP324M11	-	CEP326M20	-	CEP328M14	-	CEP330M2	-
	150	-	CEP323B8	-	CEP330B8	-	CEP339B8	-	CEP343B8
14400	95	CEP320A13	CEP320B13	CEP331A13	CEP331B13	CEP332A13	CEP332B13	CEP340A13	CEP340B13
	125	CEP324M12	-	CEP326M1	-	CEP328M5	-	CEP330M1	-
	150	-	CEP323B9	-	CEP330B9	-	CEP339B9	-	CEP343B9
15125	150	-	CEP323M6	-	CEP325M1	-	CEP327M23	-	CEP329M12
19920	150	-	-	-	CEP334B4	-	CEP333B4	-	CEP345B4
20800	150	-	-	-	CEP325M20	-	-	-	CEP329M38
21600	150	-	-	-	CEP334B5	-	CEP333B5	-	CEP345B5
22130	150	-	-	-	-	-	CEP327M24	-	CEP329M48
22800	150	-	-	-	CEP325M21	-	-	-	CEP329M10

**TABLE 4 (continued)**  
**Ratings and Catalog Numbers for Extreme-Duty Capacitors**

Ratings		300 kvar Capacitors		400 kvar Capacitors		500 kvar Capacitors		600 kvar Capacitors	
Voltage (volts)	BIL (kV)	Double-Bushing	Single-Bushing	Double-Bushing	Single-Bushing	Double-Bushing	Single-Bushing	Double-Bushing	Single-Bushing
2400	95	—	—	—	—	—	—	—	—
2770	95	—	—	—	—	—	—	—	—
4160	95	—	—	—	—	—	—	—	—
4800	95	—	—	—	—	—	—	—	—
6640	95	—	—	—	—	CEP380A5	CEP380B5	CEP390A5	CEP390B5
7200	95	CEP360A6	CEP360B6	CEP370A6	CEP370B6	CEP380A6	CEP380B6	CEP390A6	CEP390B6
7620	95	CEP360A7	CEP360B7	CEP370A7	CEP370B7	CEP380A7	CEP380B7	CEP390A7	CEP390B7
7960	95	CEP360A8	CEP360B8	CEP370A8	CEP370B8	CEP380A8	CEP380B8	CEP390A8	CEP390B8
8320	95	CEP332M9	CEP331M8	CEP334M5	CEP333M13	—	—	—	—
9540	95	CEP332M3	CEP331M22	CEP334M6	CEP333M14	—	—	—	—
9960	95	CEP360A9	CEP360B9	CEP370A9	CEP370B9	CEP380A9	CEP380B9	CEP390A9	CEP390B9
11400	95	CEP332M18	CEP331M23	CEP334M7	CEP333M15	—	—	—	—
	125	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—
12470	95	CEP360A10	CEP360B10	CEP370A10	CEP370B10	CEP380A10	CEP380B10	CEP390A10	CEP390B10
	125	CEP332M14	—	CEP334M4	—	—	—	—	—
	150	—	CEP363B6	—	CEP373B6	—	CEP383B6	—	CEP393B6
13280	95	CEP360A11	CEP360B11	CEP370A11	CEP370B11	CEP380A11	CEP380B11	CEP390A11	CEP390B11
	125	CEP332M10	—	CEP334M8	—	CEP354M13	—	—	—
	150	—	CEP363B7	—	CEP373B7	—	CEP383B7	—	CEP393B7
13800	95	CEP360A12	CEP360B12	CEP370A12	CEP370B12	CEP380A12	CEP380B12	CEP390A12	CEP390B12
	125	CEP332M13	—	CEP334M9	—	CEP354M14	—	—	—
	150	—	CEP363B8	—	CEP373B8	—	CEP383B8	—	CEP393B8
14400	95	CEP360A13	CEP360B13	CEP370A13	CEP370B13	CEP380A13	CEP380B13	CEP390A13	CEP390B13
	125	CEP332M5	—	CEP334M2	—	CEP354M15	—	—	—
	150	—	CEP363B9	—	CEP373B9	—	CEP383B9	—	CEP393B9
15125	150	—	CEP331M24	—	CEP333M16	—	—	—	—
19920	150	—	CEP365B4	—	CEP375B4	—	CEP385B4	—	CEP395B4
20800	150	—	CEP331M9	—	CEP333M17	—	—	—	—
21600	150	—	CEP365B5	—	CEP375B5	—	CEP385B5	—	CEP395B5
22130	150	—	CEP331M25	—	CEP333M20	—	—	—	—
22800	150	—	—	—	CEP333M11	—	—	—	—

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