SPD, Power Conditioning, PF Capacitors and Harmonic Filters

Power Factor Correction and Harmonic Filtering

Product Selection

UNIPAK

AUTOVAR 300 Automatic Power Factor Correction Capacitor Systems

Correction Capacitor Systems

AUTOVAR Filter—LV Automatic Detuned Filter...

Transient-Free Static Switching Power Factor Correction Units

AUTOVAR 600 Automatic Power Factor

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Capacitor Cell with Cage Clamp Terminals



Product Overview

Product Description

Eaton's power factor correction capacitors and harmonic filters are an essential part of modern electric power systems. Power factor correction capacitors are the simplest and most economical means of increasing the capacity of any power system, minimizing energy losses and correcting load power factor. In addition, power factor penalties can be reduced and power quality can be greatly enhanced.

There are several reasons to correct poor power factor. The first is to reduce or eliminate a power factor penalty charged by the utility. Another reason is that your existing transformer is, or shortly will be, at full capacity and installing power factor correction capacitors can be a very cost-effective solution to installing a brand new service. Depending on the amount of power factor correction (kvar that needs to be injected into the electrical system to improve the power factor) and the dynamic nature of the load, a fixed or switched capacitor bank may be the best solution.

When capacity becomes a problem, the choice of a solution will be dependent upon the size of the increase needed. Like all power quality solutions, there are many factors that need to be considered when determining which solution will be best to solve your power factor problem.

Harmonic Filtering

As the world becomes more dependent on electric and electronic equipment, the likelihood that the negative impact of harmonic distortion increases dramatically. The efficiency and productivity gains from these increasingly sophisticated pieces of equipment have a negative side effect...increased harmonic distortion in the power lines. The difficult thing about harmonic distortion is determining the cause. Once this has been determined, the solution can be easy. Active harmonic filtering equipment will mitigate specific harmonic issues, and correct poor power factor as well.

Power Factor Correction and Harmonic Filtering

Product Selection

Capacitor Cell Chart

Dimensions in Inches (mm)

Voltage	kvar 🛈	D	н	Weight in Lb (kg)	Catalog Number
240	1.5	3.1 (79.5)	7.9 (200.0)	1.1 (0.5)	643PCRMB
240	2	3.1 (79.5)	9.4 (238.0)	1.3 (0.6)	8B43PCRMB
240	2.5	3.1 (79.5)	9.4 (238.0)	1.3 (0.6)	1043PCRMB
240	3	3.5 (89.5)	9.4 (238.0)	1.8 (0.8)	12X43PCRMB
240	4	3.1 (79.5)	7.9 (200.0)	1.1 (0.5)	423PCRMB
240	5	3.5 (89.5)	12.3 (313.0)	2.6 (1.2)	2043PCRMB
240	6.3	3.1 (79.5)	9.4 (238.0)	1.3 (0.6)	6B23PCRMB
240	7.5	3.1 (79.5)	9.4 (238.0)	1.3 (0.6)	7X23PCRMB
240	8.3	3.5 (89.5)	9.4 (238.0)	3.3 (1.5)	8B23PCRMB
240	10	3.5 (89.5)	9.4 (238.0)	2.0 (0.9)	1023PCRMB
240	12.5	3.5 (89.5)	12.3 (313.0)	2.6 (1.2)	12X23PCRMB
240	15	3.5 (89.5)	12.3 (313.0)	2.6 (1.2)	1523PCRMB
480	1.5	2.1 (53.0)	5.0 (125.8)	0.7 (0.3)	1X43PCRMA
480	2	2.5 (63.5)	5.5 (140.8)	0.9 (0.4)	243PCRMA
480	2.5	2.5 (63.5)	5.5 (140.8)	0.9 (0.4)	2X43PCRMA
480	3	2.5 (63.5)	5.5 (140.8)	0.9 (0.4)	343PCRMA
480	4	2.5 (63.5)	6.5 (165.8)	0.9 (0.4)	443PCRMA
480	5	2.5 (63.5)	6.5 (165.8)	0.9 (0.4)	543PCRMA
480	6	3.1 (79.5)	7.9 (200.0)	1.1 (0.5)	643PCRMB
480	7.5	3.1 (79.5)	7.9 (200.0)	1.1 (0.5)	7X43PCRMB
480	8.3	3.1 (79.5)	9.4 (238.0)	1.3 (0.6)	8B43PCRMB
480	9	3.1 (79.5)	9.4 (238.0)	1.3 (0.6)	943PCRMB
480	10	3.1 (79.5)	9.4 (238.0)	1.3 (0.6)	1043PCRMB
480	12.5	3.5 (89.5)	9.4 (238.0)	1.8 (0.8)	12X43PCRMB
480	15	3.5 (89.5)	9.4 (238.0)	1.8 (0.8)	1543PCRMB
480	18	3.5 (89.5)	12.3 (313.0)	2.6 (1.2)	1843PCRMB
480	20	3.5 (89.5)	12.3 (313.0)	2.6 (1.2)	2043PCRMB
480	25	3.5 (89.5)	12.3 (313.0)	2.6 (1.2)	2543PCRMB
600	5	3.1 (79.5)	9.4 (238.0)	1.3 (0.6)	563PCRMB
600	7.5	3.1 (79.5)	9.4 (238.0)	1.3 (0.6)	7X63PCRMB
600	10	3.1 (79.5)	9.4 (238.0)	1.3 (0.6)	1063PCRMB
600	12.5	3.5 (89.5)	9.4 (238.0)	1.8 (0.8)	12X63PCRMB
600	15	3.5 (89.5)	12.3 (313.0)	2.6 (1.2)	1563PCRMB
600	17.5	3.5 (89.5)	12.3 (313.0)	2.6 (1.2)	17X63PCRMB
600	20	3.5 (89.5)	12.3 (313.0)	3.3 (1.5)	2063PCRMB
600	25	3.5 (89.5)	15.3 (388.0)	3.3 (1.5)	2563PCRMB

Heavy-Duty Capacitor Cell Chart

Dimensions in Inches (mm) Name-Internal plate Voltage Weight in Catalog Voltage kvar D Н Rating Lb (kg) Number 240 12.5 3.5 (89.5) 15.3 (388.0) 360 3.3 (1.5) 12X23PHRMB 480 15.0 3.5 (89.5) 12.3 (313.0) 525 2.6 (1.2) 1543PHRMB 480 3.3 (1.5) 16S43PHRMBS 16.7 3.5 (89.5) 15.3 (388.0) 600 480 3.3 (1.5) 2043PHRMB 20.0 3.5 (89.5) 15.3 (388.0) 525 480 25.0 3.5 (89.5) 15.3 (388.0) 525 3.3 (1.5) 2543PHRMB 600 12.3 2.6 (1.2) 12A63PHRMB 3.5 (89.5) 12.3 (313.0) 660 600 14.7 3.3 (1.5) 14S63PHRMB 3.5 (89.5) 15.3 (388.0) 660 600 16.7 3.5 (89.5) 15.3 (388.0) 660 3.3 (1.5) 16S63PHRMB

Dimensions

Approximate Dimensions in Inches (mm)

Capacitor Cell



Note

^① kvar rating standard. Standard kvar tolerance is 0% to +5%. Part number shown is for three-phase units. Up to 5 kvar at 480 V quick disconnect terminals are standard. Above 5 kvar at 480 V (and on all other voltages)—cage clamp terminals are standard.