

Versa™ Mount – Versa™ Pak At-the-Load Power Factor Improvement

VERSATEX POWER FACTOR IMPROVEMENT

CAPACITOR ASSEMBLIES provide electrical systems with relief from utility company power factor penalties, and also improve system operating efficiency. Featuring industrial grade capacitor cells and components, they meet the highest standards for quality and reliability.

A Metallized Dielectric System furnishes the capacitor cells with the toughness today's harsh electrical environments require. *Electrodes are aluminum foil, and a kraft paper substrate with aluminum metallized on both sides.* These are combined with polypropylene film to give the system its superior durability and outstanding performance capabilities.

Self-clearing characteristic is another benefit the system offers. Should a fault occur, the material around the fault is vaporized. This process clears the fault and allows the capacitor cell to continue in service without an appreciable loss of KVAR.

An Environmentally-Safe Impregnant, totally free of PCB, further enhances the dielectric strength of the system. This gives Versatex capacitor cells a higher voltage withstand capability, especially when compared to capacitor cells with "dry" systems or metallized polypropylene film dielectrics.

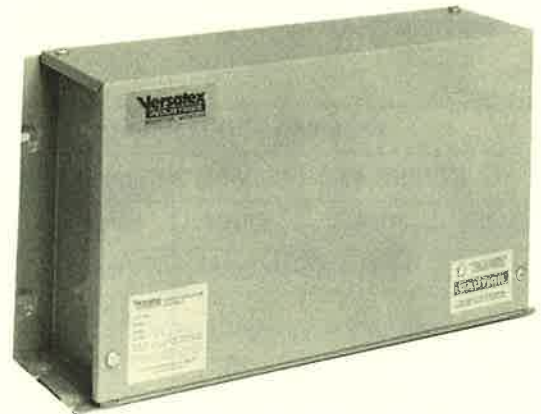
A Pressure Activated Disconnect delivers built-in protection against capacitor cell case rupture. The PAD mechanism automatically disconnects the cell from all three phases of the power circuit at end-of-life without influencing the operation of the other cells in the capacitor assembly.

Broad Performance Ranges allow capacitor cells to operate in ambient temperatures of -40°C to 50°C (-40°F to 122°F), at 110 percent of their rated voltage, and at 135 percent of their rated KVAR resulting from frequency variation, or overloads generated by overvoltages and/or harmonics.

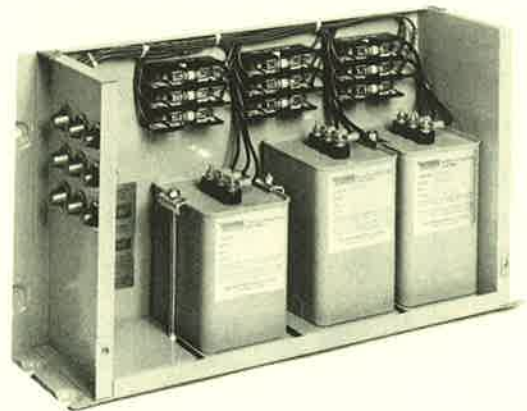
Safe Handling Features include discharge resistors inside each cell to drop residual voltage to 50 Volts or less within one minute after power is disconnected.

VERSA™ MOUNT: One three-phase, 60-Hertz, capacitor assembly, in a NEMA-rated enclosure, designed for placement at a motor, control panel, or an inductive load terminal.

VERSA™ PAK: Two or more three-phase, 60-Hertz electrically independent capacitor assemblies, in a single NEMA-rated enclosure, designed for use with several motors, or other KVAR-drawing loads, when installed near each other in an electrical network.



Versa Mount



Versa Pak

Versa Mount and Versa Pak units are **UL Listed**. Also, they are approved by, and constructed to meet the specifications of, the automotive industry.

ORDERING GUIDE

PRODUCT NUMBERS for **VERSA MOUNT** or **VERSA PAK** are easily developed by arranging data as follows:

STYLE/SERIES/KVAR/FEATURES

STYLE Code
 Versa Mount **VM**
 Versa Pak **VP**

SERIES
 480VAC, 3-phase, 60Hz **43M**
 240VAC, 3-phase, 60Hz **23M**
 For 600VAC, and uncommon voltages and frequencies, contact Versatex Industries.

KVAR
 Versa Mount Show KVAR rating of assembly.
 Versa Pak Group assemblies by KVAR rating.
 For each group, show the quantity with the same KVAR rating. Insert a dash – and the KVAR rating. Separate data for each group with commas.

FEATURES

Versa Mount and Versa Pak capacitor assemblies are UL Listed and have PAD protection in every cell. Other features, both standard and optional include:

Enclosures Code
 NEMA 12, oil-tight, dust-tight. (Standard) **N**
 NEMA 3R, rain-tight, outdoor. (Optional) **N3R**
 NEMA 4X, corrosion-proof. (Optional) **N4X**

Fusing (Optional)
 Two-phase fusing **F2**
 Three-phase fusing **F3**

Fusing and Lights (Optional)
 Two-phase fusing with blown fuse indicating lights **AF2**
 Three-phase fusing with blown fuse indicating lights **AF3**

BUILDING A PRODUCT NUMBER

VERSA MOUNT: A unit (**VM**) is required for a 480VAC, 3-phase, 60Hz (**43M**) application. The KVAR specified is 5. Features include a standard NEMA 12 enclosure (**N**), plus optional three-phase protective fusing (**F3**). Arranging this data in proper sequence results in a Product Number that reads:

VM/43M/5/NF3.

VERSA PAK: A unit (**VP**), designed to supply three separate inductive loads, is required for a 240VAC, 3-phase, 60Hz (**23M**) application. Two loads require 5 KVAR (**2-5**) and one requires 10 KVAR (**1-10**). Features include a standard NEMA 12 enclosure (**N**), plus optional three-phase fusing and blown fuse indicating lights (**AF3**). Arranging this data in proper sequence results in a Product Number that reads:

VP/23M/2-5, 1-10/NAF3.

PRICING INFORMATION

Once Product Numbers have been developed, contact your Versatex Sales Representative, or the Customer Service Department at the factory, to obtain prices.

INSTALLATION NOTE: Versatex capacitor assemblies are designed to be installed on the load side of the motor starter protective device. If installed on the line side of the motor starter, the assembly must be connected to a fusible disconnect or circuit breaker.

Assembly KVAR Ratings				
SERIES 43M (480VAC, 3-Phase, 60Hz)				
KVAR	KVAR	KVAR	KVAR	KVAR
2	11	22	45	72½
2½	12	22½	47½	75
3	12½	25	50	80
4	13	26	52½	82½
5	13½	27	55	85
6	14	30	57½	87½
7	15	32½	60	90
7½	16	35	62½	92½
8	17½	37½	65	95
9	18	40	67½	97½
10	20	42½	70	100
SERIES 23M (240VAC, 3-Phase, 60Hz)				
KVAR	KVAR	KVAR	KVAR	KVAR
2	7½	13	20	35
2½	8	13½	22	37½
3	9	14	22½	40
4	10	15	25	42½
5	11	16	27	45
6	12	17½	30	47½
7	12½	18	32½	50

PHYSICAL CHARACTERISTICS

■ FLANGED OFFSETS

Eight 1/4" flanged offsets allow easy mounting of the capacitor assembly unit and enable proper ventilation to be achieved.

■ TWO MOUNTING PLANES

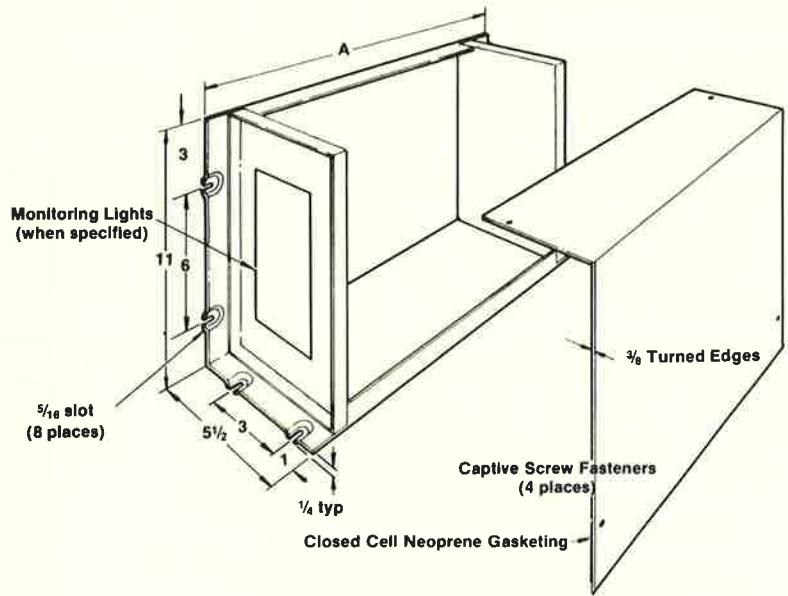
Vertical or horizontal mounting makes it easy to install the unit anywhere. Mounts with four 1/4" machine screws.

■ CAPTIVE FASTENERS

Captive screw fasteners make removing and reinstalling gasketed cover easy and prevents lost screws.

■ NO KNOCKOUTS

You decide where to place entry hole. This assures true dust-tight construction.



Dimensional and Weight Data

VERSA MOUNT – SERIES 43M					VERSA MOUNT – SERIES 23M				
KVAR Range	No. of Cells	Length Dimension A (inches)		Shipping Weight (lbs.)	KVAR Range	No. of Cells	Length Dimension A (inches)		Shipping Weight (lbs.)
		Without Fuses	With Fuses				Without Fuses	With Fuses	
2 - 16	1	10 ⁷ / ₈	10 ⁷ / ₈	12 - 17	2 - 9	1	10 ⁷ / ₈	10 ⁷ / ₈	12 - 14
17 ¹ / ₂ - 27	2	15 ⁵ / ₈	15 ⁵ / ₈	22 - 27	10 - 14	2	15 ⁵ / ₈	15 ⁵ / ₈	20 - 22
30 - 32 ¹ / ₂	2	15 ⁵ / ₈	19 ³ / ₄	28 - 30	15 - 18	2	15 ⁵ / ₈	19 ³ / ₄	25 - 27
35 - 52 ¹ / ₂	3	19 ³ / ₄	24 ¹ / ₂	37 - 40	20 - 27	3	19 ³ / ₄	24 ¹ / ₂	31 - 32
55 - 65	4	24 ¹ / ₂	33 ³ / ₈	51 - 60	30 - 35	4	24 ¹ / ₂	33 ³ / ₈	40 - 41
67 ¹ / ₂ - 82 ¹ / ₂	5	33 ³ / ₈	42 ¹ / ₄	63 - 68	37 ¹ / ₂ - 42 ¹ / ₂	5	33 ³ / ₈	42 ¹ / ₄	51 - 52
85 - 100	6	33 ³ / ₈	42 ¹ / ₄	71 - 74	45 - 50	6	33 ³ / ₈	42 ¹ / ₄	55 - 57

To determine dimensional and weight data for **VERSA MOUNT** units, find where in the "KVAR Range" chart the KVAR specified for the unit falls and trace across to "Dim.A" and "Shipping Weight" columns.

To determine dimensional and weight data for **VERSA PAK** units, contact Versatex Industries.

Versatex reserves the right to select the combination of cells for each assembly and the size of the enclosure that make up each Versa Mount and Versa Pak unit.

DELIVERY: The Versatex QuickShip 10 program ships your order within 10 working days from date of order.

TERMS OF SALE: Net due within 30 days with approved credit, FOB, Brighton, Michigan.

EXPERIENCE

Power factor improvement is our only business. In fact, solving power factor problems has been the primary focus at Versatex Industries since 1974. As a result, we have the background and experience it takes to satisfy the toughest application requirements – even those involving harmonics.

SERVICE

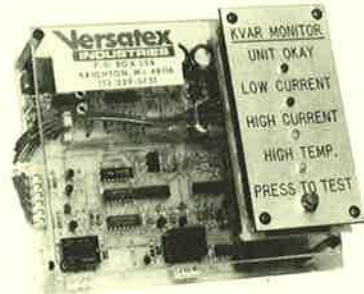
Helpful service is another advantage. Our sales representatives and factory sales engineers thrive on developing cost-effective answers to power factor improvement needs. They are eager and capable problem-solvers. Give them a call whenever you require assistance.

PRODUCT LINE DIVERSITY

Our power factor improvement capacitor assemblies provide a broad range of application options. In addition to the assemblies described in this Product Data Sheet, Versatex also offers the following power factor improvement equipment:

NON-AUTOMATIC

When requirements call for power factor improvement from a single location on a distribution system, **Versa Rack** capacitor assemblies are the answer. KVAR ratings range from 100 to 600.



The **Versatex KVAR Monitor**, with its operating status and alarm indicators, is a standard feature on all models.

Complete details and information on other benefits are provided in the **Versa Rack Product Data Sheet**.

AUTOMATIC

K*Pak Control Centers eliminate power factor penalties by supplying required KVAR while automatically keeping power factor within a specified range.



The **Versatex Microcontroller** is the key. It combines precise power factor measurement with operating status indicators and diagnostic functions. Performance is easily monitored and potential problems can be detected before they become serious concerns.

K*Pak models are available with KVAR values range from 100 through 1200. For additional details, see the **K*Pak Product Data Sheet**.

HARMONIC TRAPS AND HARMONIC POWER FILTERS

Versatex Harmonic Traps and Harmonic Power Filters are the answer to power factor improvement in harmonic-rich environments. The following styles are available:

HTVM Harmonic Traps for at-the-load applications with KVAR requirements from 10 through 100.

HVR Non-Automatic Harmonic Power Filters for applications with KVAR requirements from 100 through 320.

H*Pak Automatic Harmonic Power Filters for automatic control applications with KVAR requirements from 100 through 960.

All harmonic traps and harmonic power filters are engineered to satisfy the specific requirements of the system on which they are to be installed. For additional information, contact your Versatex Sales Representative.



Versatex INDUSTRIES

P.O. BOX 354, BRIGHTON, MI 48116
(313) 229-5751