

Vacuum and Gas Capacitors

CATALOG CAP105



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JENNINGS

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The Broadest Line Anywhere
Jennings offers the broadest line of vacuum or gas capacitors available anywhere in the world. Our high voltage capacitors have unique capabilities and make them particularly well suited for high power oscillator and amplifier circuits.

alphanumeric index

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Type	Max. Cap. pF	Test Voltage 60/50 Hz	Page
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* Capacitors are available with metric thread mounting.

** Neutralizing Capacitor

NOTE: "N" in last character in type designation signifies non-magnetic construction.

the leader in high power vacuum technology

Over Forty Years of Expertise

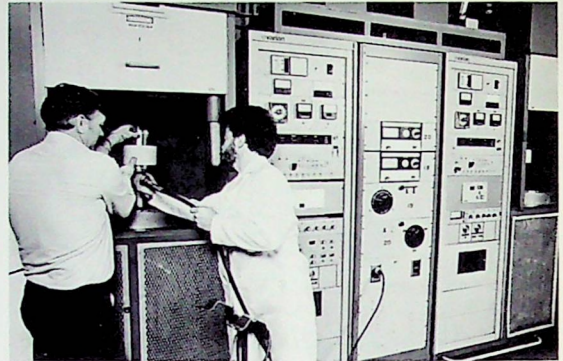
Jennings holds the notable recognition of creating the first high voltage, "vacuum" variable capacitor. This revolutionary discovery resulted in a capacitor that could be much smaller for the amount of power, no contamination, no maintenance and long life.

Jennings represents more than 40 years of expertise in the application of high vacuum technology to such components as capacitors, relays, interrupters and contactors. It took many years of research and development to convert the theoretical advantages of a vacuum as a dielectric into practice. Now, applications in the electrical, industrial, communications and power industries serve as testimony to the success and reception of this technology.

Today Jennings is known world-wide as a leader in non-thermionic vacuum components. The company occupies a 140,000 square foot facility in San Jose, California—in the high technology environment of the "Silicon Valley".

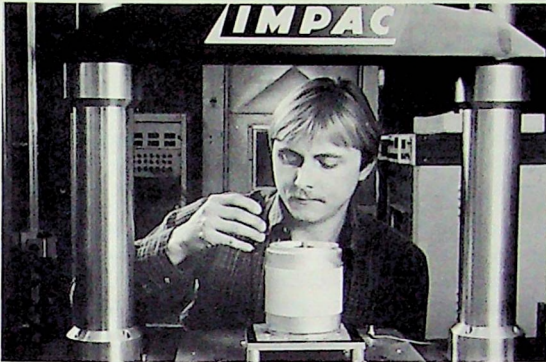
A Broad Range of Technologies

The production of high vacuum components calls for a variety of unusual skills in a broad range of technologies, including brazing, glass forming, machining, metallurgy, ceramics, etc. It is difficult to manufacture large products with a vacuum greater than 10^{-7} torr. It is even more difficult to produce such products using a variety of materials—glass, ceramic, copper, etc.; products that must carry hundreds of amps and withstand thousands of volts and wide temperature and pressure variations. That such performance and reliability are attainable is shown by the many years of successful operation that Jennings products have exhibited.



your assurance of quality

Jennings... Synonymous with Quality



Producing vacuum products is not easy. We realize that in order to produce superior products, we cannot compromise the quality of the manufacturing equipment, manufacturing process, testing and quality assurance procedures. We maintain a quality assurance program in accordance with MIL-I-45208A. Each lot manufactured is tested and inspected to rigid military, customer and Jennings requirements to assure quality conformance.

In just special equipment alone, it would be extremely difficult and costly for any other company in the world to match Jennings' high standards of manufacturing excellence.

The People of Jennings



We offer over 350 jobs to the members of our community, and it is these people who make things happen at Jennings. Each employee holds an element of "pride in manufacturing" ... an essential factor in the quality components produced at Jennings.

We have attracted the top talent in our field—chemists, metallurgists, electronic engineers. These people are constantly developing new ideas in products utilizing vacuum and gas technology. Jennings applications personnel have accumulated many years of experience in dealing with all types of applications, as well as a variety of dielectrics. The extensive results of this experience are available to both OEM and end user customers.

The people of Jennings have an uncommon dedication to the ideal of service. It's this collective talent that makes Jennings a world leader in high power vacuum and gas technology.

Your Future with Jennings

We, at Jennings, look to a steadily growing future as power systems are expanded, changed and re-changed. We will remain at the forefront of our industry ensuring that we continue to offer our customers quality, state-of-the-art, high power vacuum and gas components.



the Jennings vacuum capacitors

APPLICATIONS

Jennings high voltage vacuum capacitors have unique capabilities that make them particularly well suited for high power oscillator and amplifier circuits. Through their use, designers have been able to produce transmitters that are smaller in size, offer superior, more reliable performance and are far easier to tune and keep tuned. Problems caused by dielectric breakdown, leading to expensive and critical downtime are minimized because these units are self-healing after moderate overloads.

In both high power transmitters and other high voltage capacitor applications, Jennings vacuum capacitors are widely used for such circuits as:

- Power amplifier tank circuits
- Output of pi networks
- Neutralizing circuits
- Grid and plate blocking circuits
- Antenna coupling and "rejector" trap circuits
- Pulse shaping in the output circuit of magnetrons
- Feed-through capacitors for harmonic attenuation
- Dielectric heating equipment tank circuits
- Low inductance, high current bypass applications
- Non magnetic capacitors for resonance imaging

FEATURES

- High Voltage Rating—High dielectric strength of a vacuum plus freedom from dust contamination, humidity, etc., permits maximum voltage rating for a given size and capacity.
- High Current Rating—Low losses and rugged copper construction permit the handling of high RF currents with convection cooling only.
- Space Saving—For a given capacity and voltage rating, vacuum capacitors occupy a minimum amount of space.
- Wide Tuning Ranges—High ratio of maximum to minimum capacity (up to 150:1) make vacuum capacitors desirable for wide tuning ranges.
- Low Losses—Losses in a vacuum capacitor are so small that for most applications they can be considered as negligible. Construction materials and the vacuum dielectric permit the handling of large RF currents at high RF frequencies that would destroy capacitors with other dielectrics.
- Self-Healing—Vacuum capacitors can withstand momentary overloads that would permanently damage other units.
- High Altitude Operation—Vacuum sealing permits the operation of vacuum capacitors at high altitudes without the degradation that occurs with other types.

DESCRIPTION

Figure 1 illustrates the construction of a typical Jennings vacuum variable capacitor. Two sets of concentric cylinders, one on a sliding shaft, the other fixed, are enclosed in an evacuated ceramic or glass envelope with OFHC copper anodes located at both ends. A flexible metal bellows, attached to a sleeve type bearing, maintains the vacuum while allowing the capacitance to be varied.

The linear sliding motion required to vary capacitance is converted to rotary tuning via a threaded shaft; in many capacitors direct pull tuning is an alternative.

Internal breakdown voltage is primarily determined by the spacing of the opposing plates.

GENERAL SPECIFICATIONS

The following specifications pertain to appropriate vacuum capacitors described in this catalog. Current ratings are for normal convection cooling in ambient temperature of 25° C unless otherwise specified. In the Tables, they are given as maximum values.

Maximum Allowable Operating Temperature	120°C (250°F) for ceramic capacitor 87°C (188°F) for glass capacitor
Cooling	natural convection unless otherwise specified
Temperature Coefficient (nominal)	50 ppm for ceramic 100 ppm for glass
Mounting Position	any
Rotation to Increase Capacity	counterclockwise
Shock	exceeds requirements of MIL-C-23183
Vibration	exceeds requirements of MIL-C-23183

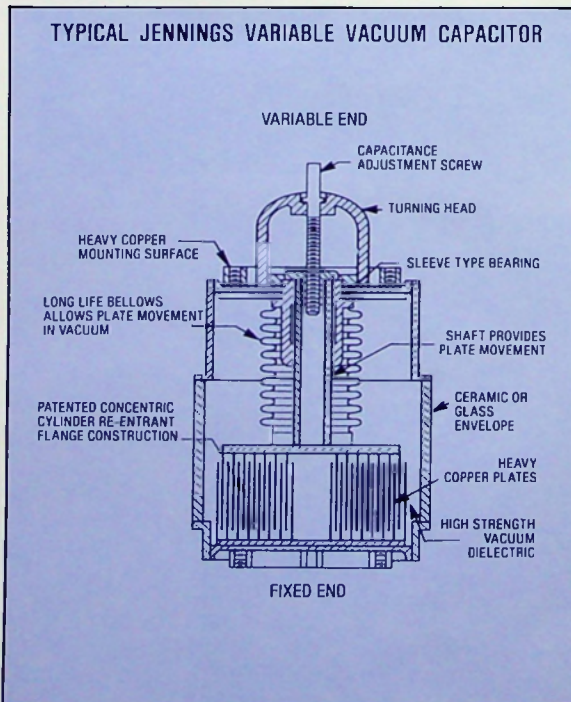


Figure 1

vacuum capacitor characteristics

The manner of characterizing Jennings vacuum capacitors is based upon extensive research and field experience dating back to 1942 when the company first introduced fixed vacuum capacitors and 1944 when research and development of variable units began, leading to the introduction of the first practical variable vacuum capacitors in 1948.

In these pages it is only possible to summarize significant findings of general interest. More detailed information relating to your specific application can be obtained by contacting your Jennings representative or writing to: **Sales Department, Jennings, 970 McLaughlin Avenue, San Jose, California 95122.** We also recommend that orders be accompanied by a brief description of the planned type of operation (such as AC or DC operation), working voltages, duty cycle, required reliability, environment, etc., to allow Jennings to offer application recommendations and assistance in using these products.

CURRENT/VOLTAGE

Vacuum capacitors are rated for a maximum operating current limited by temperature rise and a maximum working voltage. At low capacitive reactance (high capacitance) values it may be impossible to apply rated voltage without exceeding rated current. Therefore, the capacitor will be current limited. At high capacitive reactance (low capacitance) values, it may be impossible to apply rated current without exceeding rated voltage and the capacitor will be voltage limited. These characteristics are shown for each type in this catalog.

TEMPERATURE

Jennings vacuum capacitors are designed to meet MIL-C-23183 specifications.

Based upon actual current tests, most ceramic capacitors are rated for a maximum operating temperature of 120°C (250°F) and glass capacitors for 87°C (188°F) with normal convection cooling at an ambient temperature of 25°C (72°F).

Derating curves for elevated ambient temperature operation are available upon request.

CURRENT

The current rating given in the tables in this catalog is the maximum current the capacitor at maximum working voltage and capacity can handle continuously under normal convection cooling at an ambient temperature of 25°C.

Accurate measurements of RF currents and temperatures at specific frequencies and various capacity settings have been made. In the interests of simplicity, the operating temperature was allowed to vary a few degrees over the capacity range so that a single current rating could be provided at a given frequency.

The "RMS Amperes vs. Frequency" Curves, based upon maximum allowable current, are independent of voltage. Operating current for a given working voltage can be determined by Ohm's Law or the nomograph on page 13. In those instances where current ratings deviate from the normal, $I_{(rms)} = (.707) (E_W) (2\pi f C)$, as in the case of some glass capacitors, curves for maximum working voltage are provided. The slope of these curves will provide general guidance for determining operating curves for lower voltage/capacity relationships.

Pulse Ratings—Continuous RF current ratings may be exceeded for short periods if the working voltage rating is not exceeded. This applies particularly to pulse and peaks-of-modulation applications. Momentary currents may exceed the catalog continuous current rating by a factor of the square root of the duty cycle, provided the working voltage is not exceeded.

$$I \text{ Momentary} \leq \frac{I \text{ Rating}}{\sqrt{\text{Duty Cycle}}}$$

Amplitude Modulation Ratings—Capacitors in AM service must be able to withstand peaks-of-modulation voltage and current.

Current ratings are based on temperature so the heating effects of the modulated currents determine the capacitor requirements.

The average output power of an AM transmitter which is 100% sine wave modulated is 1.5 times the unmodulated carrier power. The average modulated carrier current is $\sqrt{1.5}$ (or 1.225) times the unmodulated carrier current, therefore a capacitor current rating of 1.2 times the carrier current will be sufficient even though the peaks-of-modulation currents are twice the carrier current.

Forced Cooling—If higher current ratings are required, capacitors are available with forced-air cooled bellows to operate safely at 200% of the convection cooled rating. Water cooled capacitors are also available which are normally limited only by voltage.

Typical water cooling figures are 3.5 gallons per minute at 15 psig, the high pressure being necessary to prevent steam pockets from forming in the bellows convolutions. Detailed water cooling specifications are available (see your local Jennings representative).

On standard convection cooled capacitors current rating may be exceeded for short periods of time, providing the rated temperature rise is not exceeded. Under no conditions should the current exceed 150% of convection current rating.

Fixed capacitors can carry more current because they have a shorter RF resistance path. Fixed capacitor current ratings may be increased by forced cooling up to voltage limitations.

vacuum capacitor characteristics

VOLTAGE

Two voltage ratings are given in this catalog: Peak Test Voltage and RF Working Voltage. Ratings at 60 Hz are applicable at 50 Hz.

Peak Test Voltage is the maximum 60 Hz voltage which can be applied to the capacitor without breakdown occurring, as indicated by either internal or external arc-over. Capacitors are tested at this voltage as a means of determining the general condition of the capacitor. Such a test is frequently used by customers in incoming inspection to check for damage in transit. Equipment for performing this test is described on page 61, Model JHP-70A.

RF Working Voltage is the maximum peak RF voltage that can be applied continuously to the capacitor without affecting its ability to withstand instantaneous overloads. It is generally 60% of the Peak Test Voltage rating. The difference between the 60 Hz and the RF working voltage values is the recommended operating safety factor.

For variable capacitors, the voltage rating is essentially constant from maximum capacity to a point near minimum capacity, where it increases significantly. Within the normal accuracy of instrumentation (3%), voltage ratings should not be exceeded. Jennings RF testing facilities monitor the above characteristics on a production basis; and, in addition, can do special application testing when required.

DC—Vacuum capacitors should not be operated in DC applications above the peak RF working voltage.

DC plus RF—For DC plus RF applications, the sum of the DC plus the peak RF voltage should not exceed the peak RF working voltage.

Capacitors for DC plus RF applications are tested for DC emission on a dielectric strength tester. To meet Jennings Quality Assurance standards, the DC emission current must not exceed one microamp at the rated working voltage.

Amplitude Modulation—The peak output power of an AM transmitter which is 100% sine wave modulated is 4.0 times the unmodulated carrier power. The peak RF voltage will be twice that of the unmodulated carrier and the capacitor should have an RF working voltage rating equal to or greater than this voltage.

CAPACITANCE

Fixed capacitors with a nominal capacitance above 50 pF shall be within $\pm 5\%$. Capacitors with a nominal capacitance of 50 pF or less shall be within $\pm 10\%$, or .5 pF, whichever is greater. For variable capacitors, the low end will be equal to or less than minimum rated capacitance; at the high end the capacitance will be equal to or higher than the maximum rating. The capacitance change is substantially uniform with rotation, and there are no capacitance reversals. Capacitance is within $\pm 10\%$ of the nominal value of the curves shown (Capacity vs. Turns), when the turns setting for reference purposes (defined point) is established near the low capacity end of the linear portion of this curve.

AUTOMATIC SHORTING FEATURE

A number of variable capacitors have been designed with an internal shorting device that shorts out the capacitor when it has been turned beyond maximum rated capacitance. This feature is useful for tuning antenna couplers without the vacuum capacitor in the circuit and also serves as a reference point for adjusting the capacitor to a previously measured capacitance value.



vacuum capacitor characteristics

TRACKING

Variable capacitors will track within 10% if set together near the low capacity end of the linear portion of the curve. On special order, units may be obtained to closer tracking tolerances.

TORQUE/DIRECT PULL

In variable capacitors, the linear sliding motion of the moving electrode assembly is converted to rotary tuning via a threaded shaft. The torque values given in the tables are the maximum torque needed to reach minimum capacitance when rotated with a standard leadscrew; the torque required to tune away from minimum may be less than half this value.

For most variable capacitors, direct pull tuning is a possible alternative to rotary tuning. Maximum required pullforce values are also given in the tables.

Capacitance range end-stops are built into every variable capacitor. It is recommended that the user install his own stops to prevent damage from gear-reduction drives.

In addition, Jennings also offers several "Adjustable" capacitors which are designed to be operated as a fixed capacitor, but can be hand adjusted to any value within their range and then locked in position with a locking nut.

QUALITY FACTOR (Q)

Extremely low losses occur in vacuum capacitors because of the vacuum dielectric, compact construction, and the use of low loss glass or ceramic envelopes as well as copper and precious metal solder construction. Consequently, vacuum capacitors are able to handle large RF currents at high RF frequencies that would destroy other types of capacitors. The "Q" factor, or ratio of stored energy to dissipated energy, is typically in the order of 1000 or 5000 or higher.

Because Q is a function of frequency, capacity and E.S.R. (Equivalent Series Resistance), it is perhaps more meaningful to consider the value of E.S.R. In modern high power capacitor applications, E.S.R. is significant for determining cooling requirements. The slight loss results from the RF resistance in the copper. Based upon actual tests, the E.S.R. value is not affected by change in capacity, other parameters being fixed. The value of E.S.R. varies over a range of 5 to 20 milliohms from 2.5 to 30 MHz.

THERMAL STABILITY

Jennings vacuum capacitors are designed to meet MIL-C-23183 specifications which state that the absolute value of the capacitance change with temperature shall not exceed 1.1% over the applicable

operating temperature range. In typical tests, values for ceramic capacitors show a stability within 50 ppm/°C and for glass capacitors, 100 ppm/°C. Specific tests can be performed upon individual capacitors on special request.

SALT SPRAY AND HUMIDITY

Jennings capacitors are designed to withstand the harmful effects of salt spray and humidity, without degradation in performance.

INDUCTANCE

The self-inductance of vacuum variable capacitors is typically in the order of 6 to 20 nanohenries while that of a fixed capacitor is significantly lower, in the range of 2 to 6 nanohenries.

For most applications, the self-inductance can be ignored. It becomes a factor only when the ratio of capacitive reactance to inductive reactance is small. Graphs of inductance or resonant frequency vs. capacity are available (see Figure 2).

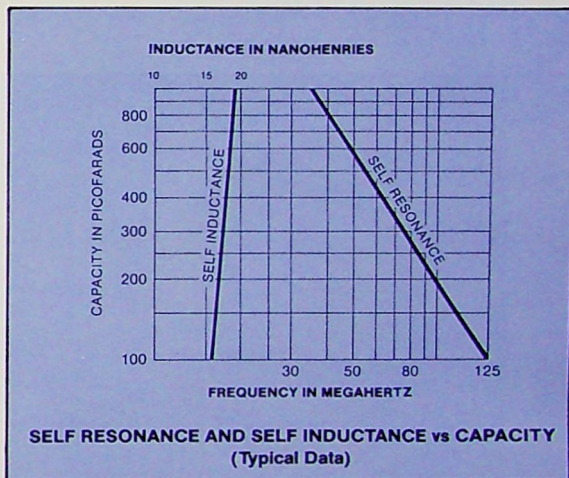


Figure 2

MECHANICAL LIFE

The mechanical life of variable capacitors is related to length of stroke, speed of operation and total number of cycles. Extensive mechanical life tests have been run, operating units for complete cycles from maximum to minimum and back to maximum capacity covering 95% of the full stroke of the movable plates. Capacitors with a large bellows and a short stroke will have the greatest life expectancy under cycling operation.

Jennings application engineers can check your specific application to assure that the optimum capacitor is selected for your requirements.

capacitors in parallel

When two or more capacitors are connected in parallel, the inductance of the connecting conductors acting with the capacitors form a tuned circuit.

In high current circuits, it is normal to parallel two or more capacitors. Care must be taken, due to the low loss of the vacuum capacitors and the heavy copper straps paralleling the capacitors, to ensure that the frequency of this series high-Q resonant circuit is above the operating frequency. If the frequency of the series resonant circuit were allowed to become equal to the operating frequency, high currents could be generated which would result in damage to the capacitor.

All capacitors have inductance as well as capacitance. The inductance of a vacuum capacitor is typically of the order of 2 to 20 nanohenries or lower, depending on the capacitor type.

By using low inductance connections (Figure 3), the incidental tuned circuit of two 1000 pf capacitors in parallel can be kept well above 30 MHz. At low capacities of 50 to 100 pf, the resonant frequency can be kept well above 100 MHz.

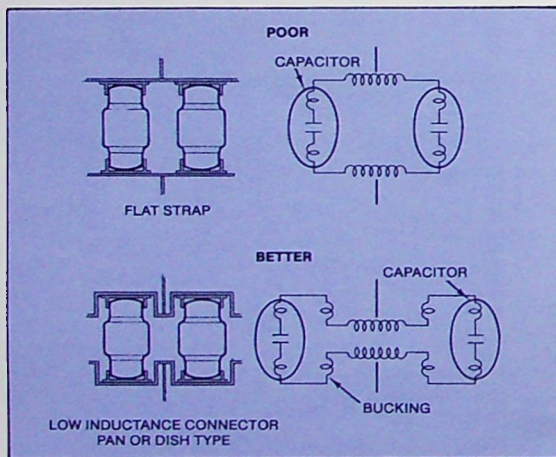


Figure 3

Figure 4 is a graph of resonant frequency vs. capacity of two CVEP-2000 ceramic capacitors with both standard and low inductance connections. The resonant frequency of the resulting parallel tuned circuit varies from 20 MHz to 135 MHz from maximum to minimum capacity.

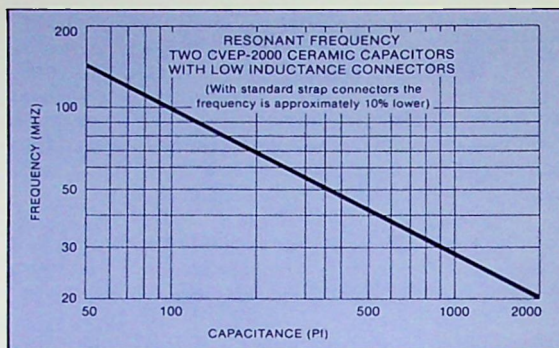


Figure 4

This pair of capacitors would operate as the plate tank of a high powered 2-30 MHz transmitter with no difficulty. At the low frequency, maximum capacity would be used and the incidental resonance within the tank capacitors would be several times the operating frequency. At the high frequency, minimum capacity would be used and the incidental resonance would have increased until it was still several times the operating frequency.

The physical size of the components in a high power 30 MHz final amplifier may cause problems because of stray inductance.

This stray inductance of a plate blocking capacitor and its straps for shunt feed is often as great as the desired tank inductance. The output capacitance of the tube (frequently over 100 pf), the plate tank tuning capacitor, and the stray inductance associated with the plate blocking capacitor make an incidental tuned circuit that could be marginal to the overall circuit (Figure 5).

capacitors in parallel

In circuit Figure 5A the blocking capacitor at high frequencies and high power may be required to carry very heavy current. By using the circuit of Figure 5D, the plate tank capacitor can be connected adjacent to the plate (less stray inductance) and become more effective. The plate blocking capacitor is moved closer to the antenna circuit. While more blocking capacity is required in Figure 5D than in the circuit of Figure 5A, it only has to carry the output load current. However, the plate tank tuning capacitors will have the DC plate voltage applied to them in addition to the RF voltage. A capacitor with DC voltage capability should be specified when ordering units for this application. The peak RF working voltage should be equal to the sum of the applied DC and the peak RF voltage.

The plate blocking capacitor in a shunt fed RF amplifier sees the DC plate voltage plus the peak modulating voltage plus a small amount of RF voltage. At higher frequencies and powers it will usually see high RF currents as well.

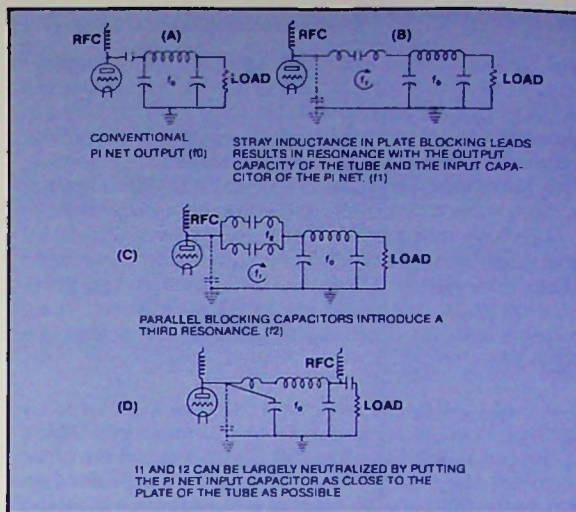


Figure 5

testing

TESTING

Factory—All capacitors are tested for dielectric strength on a 100% basis prior to shipment. Upon customer request, certified test reports will be made available. Capacitors for critical applications are also 100% tested in an RF tank circuit at rated voltage and current (or customer specifications) before being shipped.

Dielectric strength testing using a low current high potential source of 60 Hz voltage is used extensively throughout the manufacturing process and prior to shipping.

Capacitors for applications involving applied DC voltage should be tested on a DC dielectric strength meter for voltage and emission current, and will be so tested if the order specifies this type of operation.

User—Most users will find the 60 Hz dielectric strength test adequate and relatively inexpensive. Jennings does not recommend DC testing being performed by the user because of safety considerations. If DC testing is performed, care should be taken not to exceed 60% of the peak test voltage rating of the capacitor. The Model JHP-70A AC Hipot tester designed for this purpose is described on page 61. This compact, lightweight instrument will generate and measure 70,000 volts peak for on-site testing of high voltage components such as capacitors, switches, transformers, etc.



Testing Procedure—Apply 60 Hz current-limited voltage across the capacitor. One side may be grounded if desired.

Increase voltage at a rate that does not generate transients. The rate of increase should be from zero to maximum voltage in one minute. Normal test procedure requires that the capacitor be able to withstand the full rated voltage without barnacles occurring after the first minute at the test voltage. A barnacle is a self-healing, nonsustained, momentary breakdown. Weak barnacles that instantly heal are disregarded during the first minute. Under no condition should the test voltage be exceeded.

A slight white or blue fluorescence in glass units is normal in room light. This type of fluorescence is not harmful or unusual as various materials used in the capacitors may tend to fluoresce under high electric fields (such as uranium glass). Capacitors that have not been used for a long time may initially fluoresce.

(continued on page 12)

testing/installation/maintenance

TESTING (cont'd)

Arc Detectors—In extremely critical circuit applications, some form of arc detection is necessary. An oscilloscope may be connected across the capacitor to show weak electron discharges, waveform distortion, evidence of strong DC emission currents, or corona. The Jennings type Model J-1005 portable RF voltmeter is ideal for arc detection and voltage measurement of this nature, since it has a voltage range of 0 to 50 kV and oscilloscope connections with a step-down ratio of approximately 600 to 1. The voltmeter has a frequency response of 60 Hz to 30 MHz at full rated voltage with an accuracy of $\pm 3\%$ of full scale. See page 61.

Another form of arc detection may be improvised by using a small neon lamp with one terminal connected to the hot side of the capacitor under test and the other terminal of the lamp floating. The lamp will flash when the capacitor arcs. A contact microphone and audio amplifier connected to the base of the stand-off insulator supporting the capacitor under test makes a very sensitive arc detector.

INSTALLATION PRECAUTIONS

Testing—Capacitors are well packaged and shipped in a manner to assure safe delivery. However, during shipping they may be subjected to extreme shock which could damage the capacitor elements without damaging the shipping container. Therefore, capacitors should be tested upon receipt and before installation. (See section on "Testing ... User," page 11).

Warning—During installation, avoid twisting or bending strains that could cause failure of the glass- or ceramic-to-metal seal.

Mounting Position—Units may be mounted in any position. When large capacitors are mounted horizontally, both ends should be supported by standoff insulators to eliminate excessive stresses and possible damage. (Vertical mounting preferred.)

Cooling—Current ratings are determined on the basis of convection cooling only. It is good design practice to provide an added safety factor by having the variable end mounted on the chassis for heat sinking and by using flexible copper straps for the fixed electrode end. Graphs of recommended minimum strap sizes for various currents and frequencies are available. When a large capacitor is being operated near its maximum current rating at high frequencies, there must be adequate space around the unit for convection cooling.

Water Cooling—Consult factory for specific recommendations.

Thermal Expansion—To allow for thermal expansion, at least one end of the capacitor should have a flexible connection. In variable capacitors, the flexible connection is normally made to the fixed electrode end.

Avoid heavy rigid straps or connections that produce a mechanical strain. The connections should be of substantial area to keep losses low and provide cooling by conduction from both ends. Only a small degree of flexibility is required.

Electrical Connections—Both ends of the capacitor may be "hot" or one end may be grounded. Because of the high voltages present, there must be sufficient clearance between the capacitor and other components to prevent high voltage breakdown. Although the capacitors are designed to ensure optimum electrical field distribution, mounting should be such that adjacent components do not upset this normal electrical field and thus result in excessive heating.

Where the possibility exists of external arcs from transients or parasitic voltages, the capacitor should be protected by adequate corona or arc shields. Ball gaps are recommended when protection from simple voltage arcover is required.

Lead Lengths—At high frequencies, avoid long lead length as the reactance of the strap will subtract from the reactance of the capacitor and effectively increase the total capacitance. In some cases, the total reactance may be reduced to the point where the minimum capacity of the capacitor will appear too high.

Other Precautions—Capacitors should not be used as "stand-off" insulators to support heavy assemblies.

Only the part of the capacitor specified as the mounting area should be used for that purpose, and any clamps or straps must be attached carefully to avoid stress on the unit, possibly causing seal failure.

Solder connections should not be made directly to the body of the capacitor, nor should there be any contact with the glass or ceramic insulator during operation.



WARNING

SEE PAGE 63 FOR IMPORTANT SAFETY PRECAUTIONS INFORMATION.

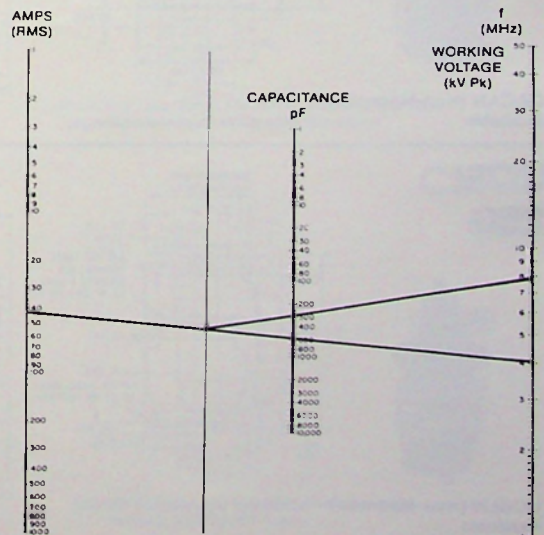
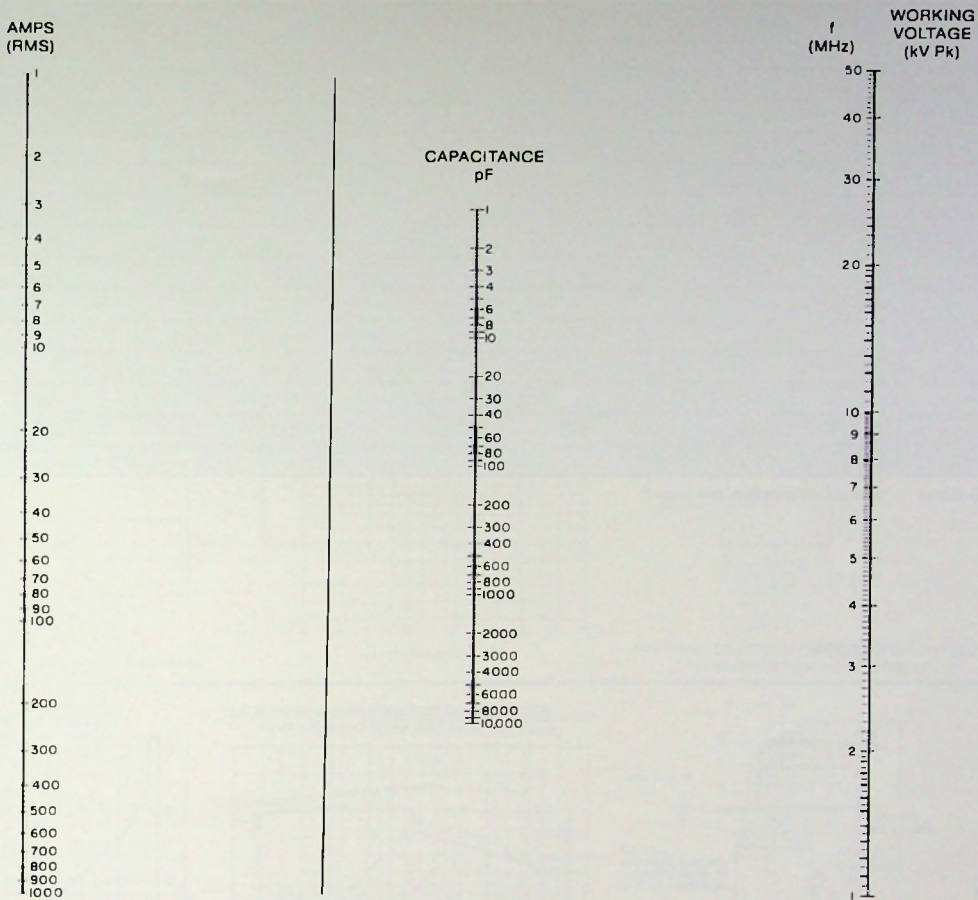
MAINTENANCE

Capacitors operated at normal temperature in a clean environment require no maintenance except to keep them free of dirt accumulations and moisture which may cause a drop in external insulation resistance. A special glaze is applied to all Jennings ceramic capacitors to avoid absorption of moisture and foreign matter.

If they are being operated at high temperatures, it is advisable to periodically lubricate shaft and bearing with a good grade of high temperature light oil, and the lead screw with a high temperature, extreme pressure grease.

nomograph

Maximum Current vs Capacitance, Frequency and Working Voltage



HOW TO USE THE NOMOGRAPH

PROBLEM:

What is the RMS current value for a capacitor of 300 pF operating at a frequency of 8 MHz and a working voltage of 4 kV?

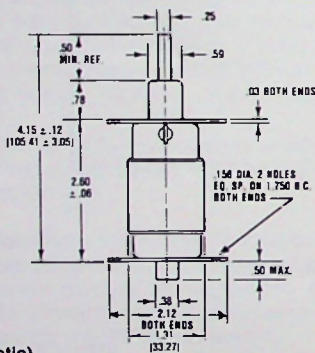
ANSWER:

Connect C-300 with $f=8$ and note the intersection with the unmarked axis. Connect this intersection with $V=4$ and read the RMS current value -42.5 amps.

PEAK TEST VOLTAGE (kV)	MODEL NUMBER	CAPACITY RANGE (pF)	PEAK WORKING VOLT. (kV)	AMPS (RMS) MAX.	NOMINAL DIMENSIONS				TYPE (1)	TORQUE (In. Lbs.) MAX.	DIRECT PULL (Lbs. Max.)	WEIGHT (NOM.) Lbs.
					INCHES		MILLIMETERS					
					LENGTH	DIAMETER	LENGTH	DIAMETER				
3	CACA-125-0003	5-125	1.8	20	4.15	1.31	105.41	33.27	C	1.25	20	6.5 oz
5	CACA-125-0005	5-125	3.0	22	4.15	1.31	105.41	33.27	C	1.25	20	6.5 oz
3	UCSL-250-3S	4-250	1.8	30	4.12	2.19	104.65	55.63	G	3	28	9 oz
5	UCSL-250-5S	4-250	3.0	35	4.12	2.19	104.65	55.63	G	3	28	9 oz
3	CVCD-250-3S	5-250	1.8	45	6.00	2.44	152.40	61.98	C	1.5	42	1 lb 10 oz
5	CVCD-250-5S	5-250	3.0	50	6.00	2.44	152.40	61.98	C	1.5	42	1 lb 10 oz
3	CSV1-500-0003	5-500	1.8	40	5.75	2.35	146.05	59.69	C	2	50	1 lb 5 oz
5	CSV1-500-0005	5-500	3.0	45	5.75	2.35	146.05	59.69	C	2	50	1 lb 5 oz
3	UCSL-500-3S	5-500	1.8	35	4.94	2.32	125.48	58.93	G	3.8	40	9 oz
5	UCSL-500-5S	5-500	3.0	40	4.94	2.32	125.48	58.93	G	3.8	40	9 oz
3	CVCD-500-3S	5-500	1.8	50	6.00	2.44	152.40	61.98	C	1.5	42	1 lb 10 oz
5	CVCD-500-5S	5-500	3.0	55	6.00	2.44	152.40	61.98	C	1.5	42	1 lb 10 oz
5	CMV2-500-0105 ¹	5.6-500	5.0	38	4.65	1.78	118.14	45.21	C	1.6	50	12 oz

*C-Ceramic/G-Glass ¹Has shorting switch, see page 8.

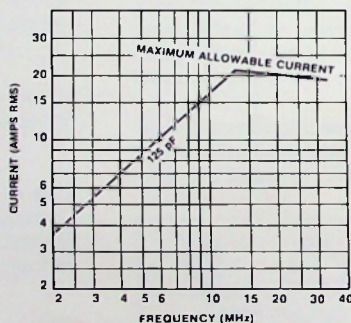
CACA 125



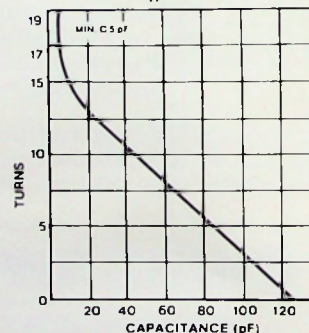
CACAN (Non-Magnetic) Available

Mounting: Soldered-on flanges.

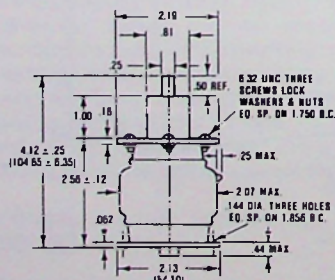
CONTINUOUS RMS AMPERES vs FREQUENCY (at 3kV PEAK WORKING VOLTAGE)



CAPACITY vs TURNS Typical Data



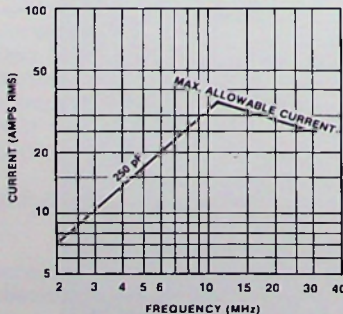
UCSL 250



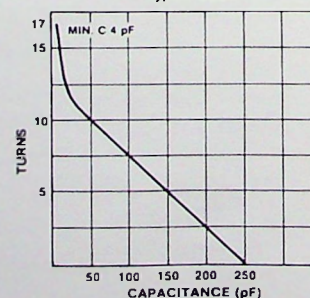
UCSLN (Non-Magnetic) Available

Mounting: Soldered-on flanges.

CONTINUOUS RMS AMPERES vs FREQUENCY (at 3kV PEAK WORKING VOLTAGE)



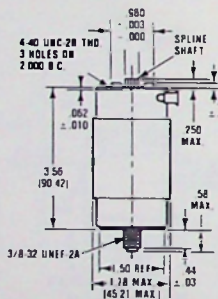
CAPACITY vs TURNS Typical Data



PEAK TEST VOLTAGE (kV)	MODEL NUMBER	CAPACITY RANGE (pF)	PEAK WORKING VOLT. (kV)	AMPS (RMS) MAX.	NOMINAL DIMENSIONS				TYPE (*)	TORQUE (In. Lbs.) MAX.	DIRECT PULL (Lbs. Max.)	WEIGHT (NOM.) Lbs.
					INCHES		MILLIMETERS					
					LENGTH	DIAMETER	LENGTH	DIAMETER				
5	CMV1-650-0005 ¹	8-650	5.0	40	4.35	1.78	110.49	45.21	C	1.1	42	15 oz
3	CVCE-750-3S	10-750	1.8	75	7.10	3.44	180.34	87.38	C	2.1	36	3 lb 1 oz
5	CVCE-750-5S	10-750	3.0	80	7.10	3.44	180.34	87.38	C	2.1	36	3 lb 1 oz
3	CVCJ-1000-3S	7-1000	1.8	60	7.56	3.07	192.02	77.98	C	2.2	45	2 lb 12 oz
5	CVCJ-1000-5S	7-1000	3.0	70	7.56	3.07	192.02	77.98	C	2.2	45	2 lb 12 oz
3	CMV1-1000-0003 ¹	8-1000	3.0	40	4.33	1.78	109.86	45.21	C	1.1	43	14 oz
3	CVCD-1000-3S	10-1000	1.8	75	7.10	3.44	180.34	87.38	C	2.5	42	3 lb 10 oz
5	CVCD-1000-5S	10-1000	3.0	80	7.10	3.44	180.34	87.38	C	2.5	42	3 lb 10 oz
5	CSV1-1000-0005	10-1000	3.0	70	5.00	3.12	127.00	79.25	C	2	50	1 lb 14 oz

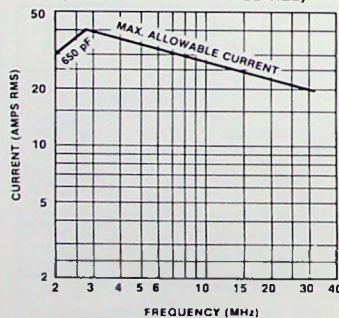
*C-Ceramic/G-Glass ¹Has shorting switch see page 8.

CMV1 650

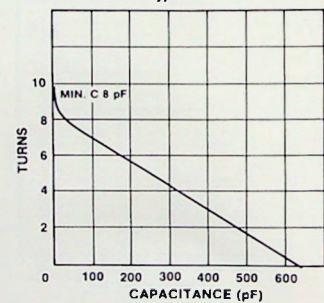


Mounting: Fixed end threaded stud.
Variable end tapped holes.

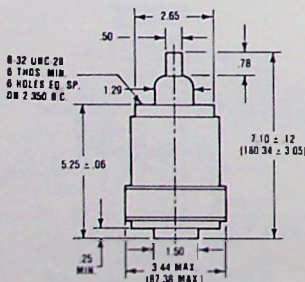
CONTINUOUS RMS AMPERES vs FREQUENCY
(at 5kV PEAK WORKING VOLTAGE)



CAPACITY vs TURNS
Typical Data

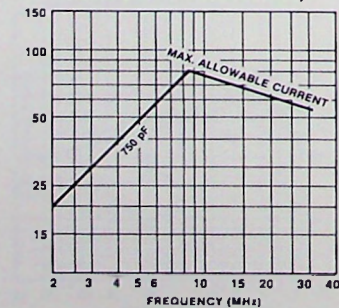


CVCE 750

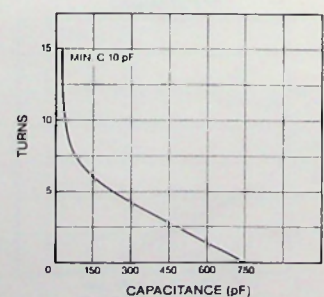


Mounting: Fixed end ferrule use FM1H flange (pg. 62).
Variable end tapped holes.

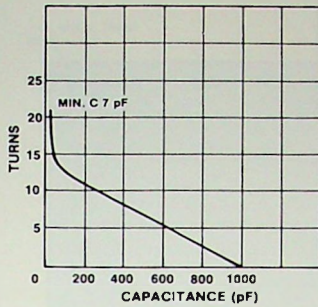
CONTINUOUS RMS AMPERES vs FREQUENCY
(at 3kV PEAK WORKING VOLTAGE)



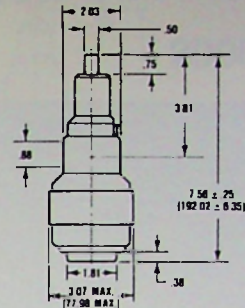
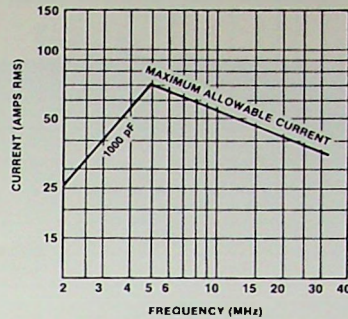
CAPACITY vs TURNS
Typical Data



CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 3kV PEAK WORKING VOLTAGE)

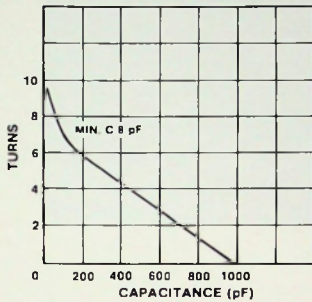


CVCJ
1000

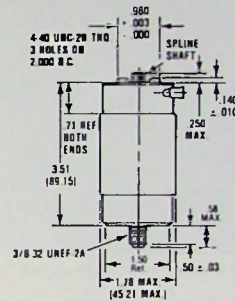
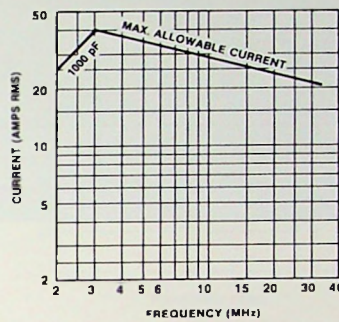


Mounting: Use flange FMIC on fixed end.
Flange FM2 on variable end (pg. 62).

CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 3kV PEAK WORKING VOLTAGE)

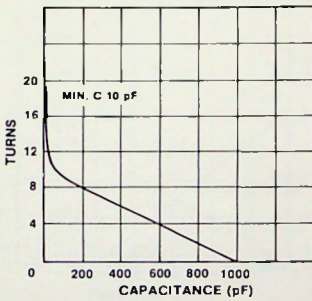


CMV1
1000

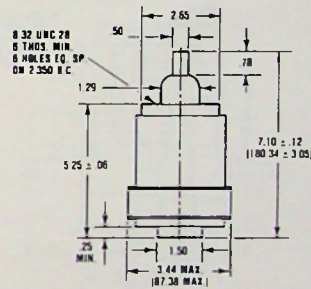
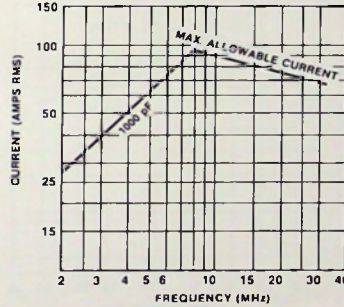


Mounting: Fixed end threaded stud.
Variable end tapped holes.

CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 3kV PEAK WORKING VOLTAGE)

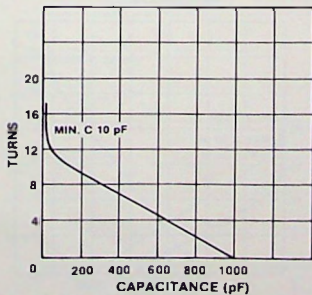


CVCD
1000

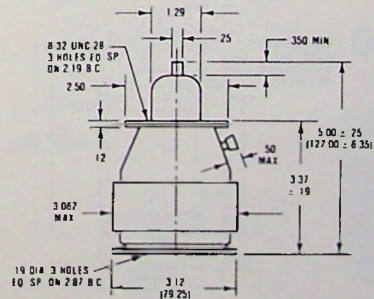
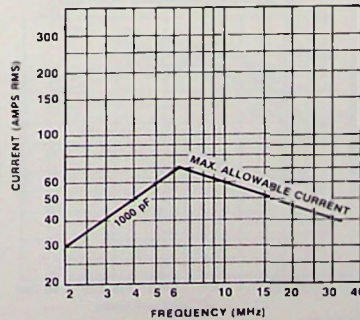


Mounting: Fixed end ferrule use FM1H flange (pg. 62).
Variable and tapped holes.

CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 3kV PEAK WORKING VOLTAGE)



CSV1
1000



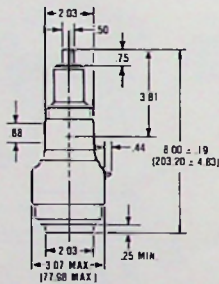
Mounting: Both ends have flanges soldered-on.

CSV1N (Non-Magnetic) Available

PEAK TEST VOLTAGE (kV)	MODEL NUMBER	CAPACITY RANGE (pF)	PEAK WORKING VOLT. (kV)	AMPS (RMS) MAX.	NOMINAL DIMENSIONS				TYPE (*)	TORQUE (In. Lbs.) MAX.	DIRECT PULL (Lbs. Max.)	WEIGHT (NOM.) Lbs.
					INCHES		MILLIMETERS					
					LENGTH	DIAMETER	LENGTH	DIAMETER				
3	CVCD-1500-3S	10-1500	1.8	80	7.10	3.44	180.34	87.38	C	2.5	42	3 lb 10 oz
5	CVCD-1500-5S	10-1500	3.0	100	7.10	3.44	180.34	87.38	C	2.5	42	3 lb 10 oz
3	UCSL-1500-3S	10-1500	1.8	50	8.00	3.07	203.20	77.98	G	3.9	60	2 lb
5	UCSL-1500-5S	10-1500	3.0	60	8.00	3.07	203.20	77.98	G	3.9	60	2 lb
3	UCSL-2000-3S	20-2000	1.8	75	8.25	3.07	209.55	77.98	G	3.9	65	2 lb 3 oz
5	UCSL-2000-5S	20-2000	3.0	80	8.25	3.07	209.55	77.98	G	3.9	65	2 lb 3 oz
3	CVCD-2000-3S	20-2000	1.8	70	7.10	3.44	180.34	87.38	C	2.5	42	3 lb 10 oz
5	CVCD-2000-5S	20-2000	3.0	100	7.10	3.44	180.34	87.38	C	2.5	42	3 lb 10 oz
5	CMV2-2000-0105 ¹	20-2000	5.0	80	6.63	2.50	168.42	63.5	C	1.6	50	2 lb 8 oz
3	CVCD-3000-3S	50-3000	1.8	90	8.25	4.56	209.55	115.82	C	1.7	45	5 lb 12 oz
5	CVCD-3000-5S	50-3000	3.0	100	8.25	4.56	209.55	115.82	C	1.7	45	5 lb 12 oz
2	UCSL-3000-2S	50-3000	1.2	75	8.38	3.57	212.85	90.68	G	4.4	50	3 lb
3	UCSL-3000-3S	50-3000	1.8	80	8.38	3.57	212.85	90.68	G	4.4	50	3 lb
5	CMV1-4000-0005 ¹	25-4000	5.0	70	6.57	3.21	166.88	81.53	C	1.9	50	4 lb 2 oz
2	UCSL-5000-2S	100-5000	1.2	75	8.75	4.13	222.25	104.90	G	4.6	65	3 lb 8 oz
3	UCSL-5000-3S	100-5000	1.8	80	8.75	4.13	222.25	104.90	G	4.6	65	3 lb 8 oz

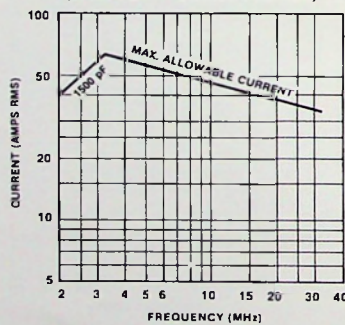
*C-Ceramic/G-Glass ¹Has shorting switch, see page 8.

UCSL 1500

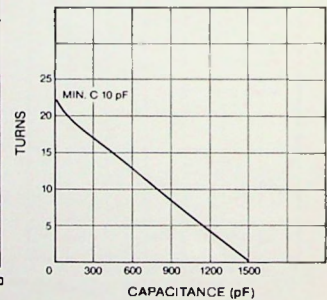


Mounting: Use flange FM2S on fixed end.
Flange FM2 on variable end (pg. 62).

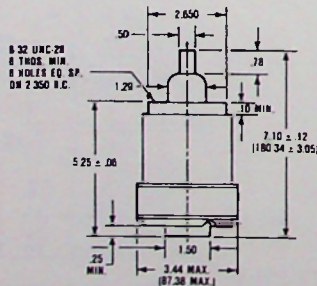
CONTINUOUS RMS AMPERES vs FREQUENCY (at 3kV PEAK WORKING VOLTAGE)



CAPACITY vs TURNS Typical Data

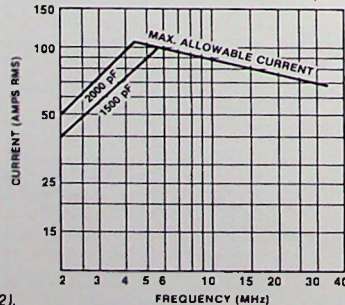


CVCD 1500, 2000

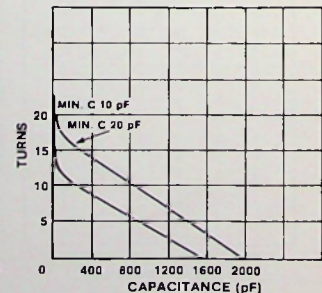


Mounting: Fixed end ferrule use FM1H flange (pg. 62).
Variable end tapped holes

CONTINUOUS RMS AMPERES vs FREQUENCY (at 3kV PEAK WORKING VOLTAGE)



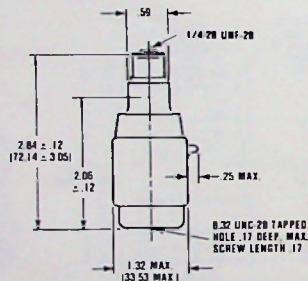
CAPACITY vs TURNS Typical Data



PEAK TEST VOLTAGE (kV)	MODEL NUMBER	CAPACITY RANGE (pF)	PEAK WORKING VOLT. (kV)	AMPS (RMS) MAX.	NOMINAL DIMENSIONS				TYPE (*)	TORQUE (In. Lbs.) MAX.	DIRECT PULL (Lbs. Max.)	WEIGHT (NOM.) Lbs.
					INCHES		MILLIMETERS					
					LENGTH	DIAMETER	LENGTH	DIAMETER				
10	ECS-8-10S	2-8	6	7	2.84	1.32	72.14	35.53	G	2.8	17	3 oz
15	ECS-8-15S	2-8	9	10	2.84	1.32	72.14	35.53	G	2.8	17	3 oz
15	CAEB-10-0015	2-10	9	12	4.35	1.31	110.48	33.27	C	1.5	20	5 oz
20	CAEB-10-0020	2-10	12	16	4.35	1.31	110.48	33.27	C	1.5	20	5 oz
20	TC-25-20S	5-25	12	20	6.62	2.13	168.15	54.10	G	0.9	16	8 oz
7.5	CADD-30-0107	3-30	4.5	18	4.12	1.30	104.65	33.27	C	1.25	20	6.2 oz
10	CADD-30-0110	3-30	6	19	4.12	1.30	104.65	33.27	C	1.25	20	6.2 oz
15	CADD-30-0115	3-30	9	20	4.12	1.30	104.65	33.27	C	1.25	20	6.2 oz
7.5	CADD-30-7.5S	3-30	4.5	18	4.62	1.30	117.34	33.27	C	1.25	20	5 oz
10	CADC-30-10S	3-30	6	19	4.62	1.30	117.34	33.27	C	1.25	20	5 oz
15	CADC-30-15S	3-30	9	20	4.62	1.30	117.34	33.27	C	1.25	20	5 oz
7.5	CVDD-50-7.5S	6.5-50	4.5	30	5.44	2.44	138.18	61.96	C	1.25	28	1 lb 8 oz
10	CVDD-50-10S	6.5-50	6	40	5.44	2.44	138.18	61.96	C	1.25	28	1 lb 8 oz
15	CVDD-50-15S	6.5-50	9	60	5.44	2.44	138.18	61.96	C	1.25	28	1 lb 8 oz

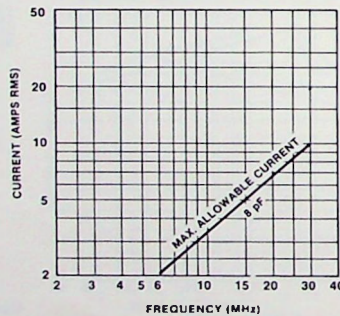
*C-Ceramic/G-Glass

ECS 8

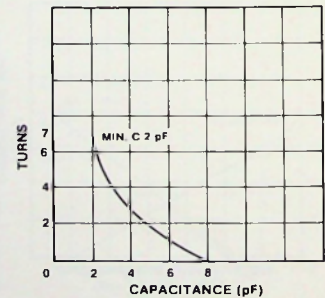


Mounting: Fixed end has threaded hole.
Variable end use Jennings No. 111515
Fuse clip (pg. 62).

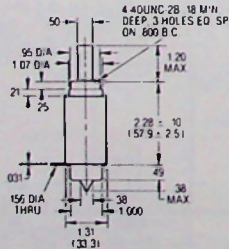
CONTINUOUS RMS AMPERES vs FREQUENCY
(at 9kV PEAK WORKING VOLTAGE)



CAPACITY vs TURNS
Typical Data

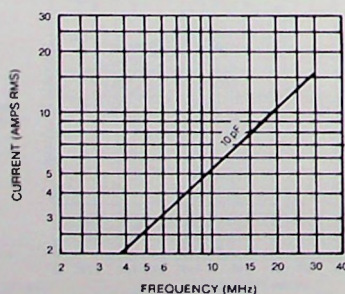


CAEB 10

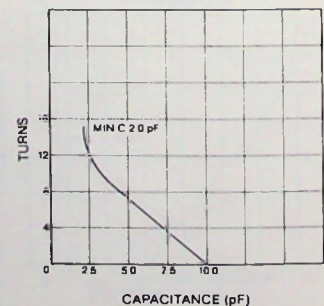


Mounting: Variable end has tapped holes.
Fixed end has tab.

CONTINUOUS RMS AMPERES vs FREQUENCY
(at 12kV PEAK WORKING VOLTAGE)

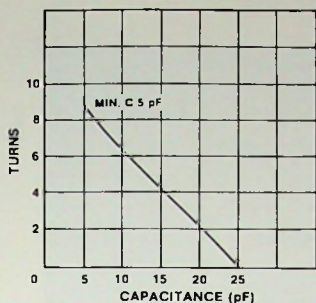


CAPACITY vs TURNS
Typical Data

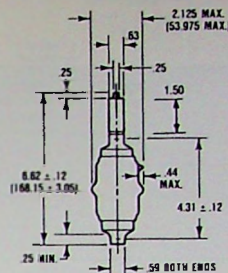
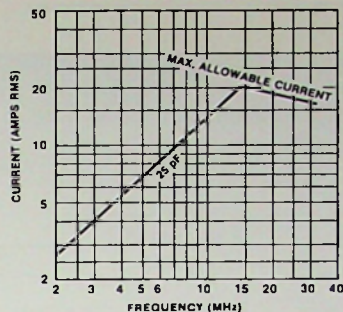


TC
25

CAPACITY vs TURNS
Typical Data

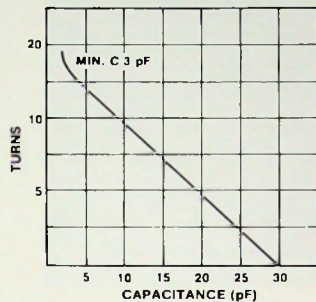


CONTINUOUS RMS AMPERES vs FREQUENCY
(at 12kV PEAK WORKING VOLTAGE)

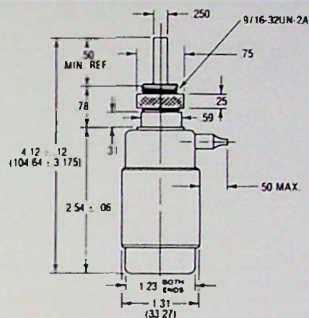
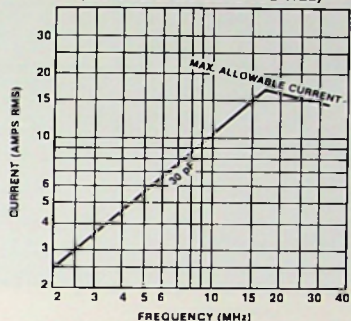


Mounting: Use Jennings
No. 11515 Fuse clip both ends (pg. 62).

CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 9kV PEAK WORKING VOLTAGE)



CADD
30

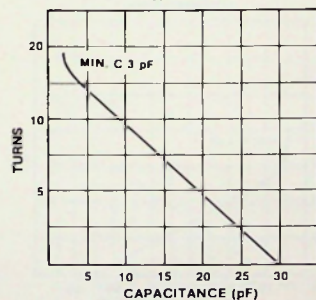


Mounting: Fixed end has threaded hole 6-32 UNC-2B
maximum screw length .17

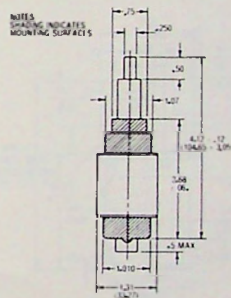
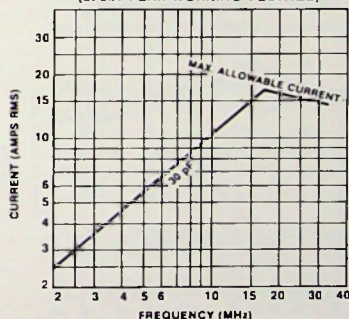
Variable End: Threaded or use Jennings No. 11515 fuse clip (pg. 62).

CADDN (Non-Magnetic) Available

CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 9kV PEAK WORKING VOLTAGE)



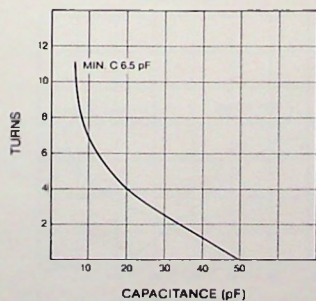
CADDN
30



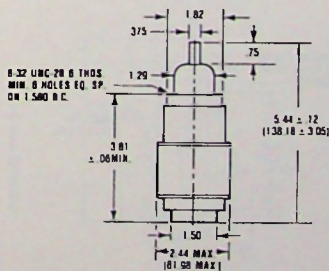
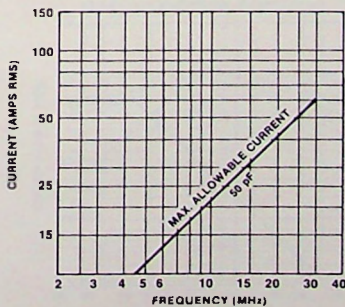
Mounting: Use Jennings No. 112304 fuse clip (pg. 62)
or soldered-on flange types.

Soldered-on Flanges Available: CADC30-XXD1834 (flanges both ends);
CADC30-XXD1823 (Fixed end flange only).

CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 9kV PEAK WORKING VOLTAGE)



CVDD
50

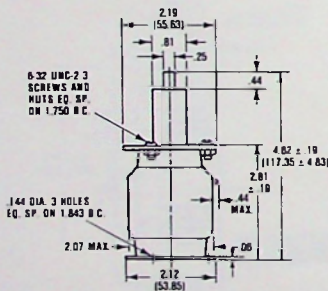


Mounting: Fixed end ferrule use FM1H flange (pg. 62).
Variable end tapped holes.

PEAK TEST VOLTAGE (kV)	MODEL NUMBER	CAPACITY RANGE (pF)	PEAK WORKING VOLT. (kV)	AMPS (RMS) MAX.	NOMINAL DIMENSIONS				TYPE (*)	TORQUE (In. Lbs.) MAX.	DIRECT PULL (Lbs. Max.)	WEIGHT (NOM.) Lbs.
					INCHES		MILLIMETERS					
					LENGTH	DIAMETER	LENGTH	DIAMETER				
7.5	GCS-55-7.5S	5-55	4.5	30	4.62	2.12	117.35	53.85	G	3.3	40	8 oz
10	GCS-55-10S	5-55	6	35	4.62	2.12	117.35	53.85	G	3.3	40	8 oz
15	GCS-55-15S	5-55	9	40	4.62	2.12	117.35	53.85	G	3.3	40	8 oz
7.5	CVDD-100-7.5S	10-100	4.5	55	6.62	2.44	168.15	61.96	C	1.3	30	1 lb 10 oz
10	CVDD-100-10S	10-100	6	60	6.62	2.44	168.15	61.96	C	1.3	30	1 lb 10 oz
15	CVDD-100-15S	10-100	9	65	6.62	2.44	168.15	61.96	C	1.3	30	1 lb 10 oz
7.5	GCS-100-7.5S	5-100	4.5	35	4.75	2.12	120.65	53.85	G	2.9	40	8 oz
10	GCS-100-10S	5-100	6	40	4.75	2.12	120.65	53.85	G	2.9	40	8 oz
15	GCS-100-15S	5-100	9	45	4.75	2.12	120.65	53.85	G	2.9	40	8 oz
7.5	UCSB-100-7.5S	5-100	4.5	35	4.88	2.44	123.95	61.98	G	4.4	54	1 lb 2 oz
10	UCSB-100-10S	5-100	6	40	4.88	2.44	123.95	61.98	G	4.4	54	1 lb 2 oz
15	UCSB-100-15S	5-100	9	45	4.88	2.44	123.95	61.98	G	4.4	54	1 lb 2 oz
7.5	UCSV-110-7.5S	8-110	4.5	50	4.75	2.88	120.65	73.15	G	3.3	50	1 lb 2 oz
10	UCSV-110-10S	8-110	6	50	4.75	2.88	120.65	73.15	G	3.3	50	1 lb 2 oz
15	UCSV-110-15S	8-110	9	50	4.75	2.88	120.65	73.15	G	3.3	50	1 lb 2 oz
7.5	UCS-200-7.5S	5-200	4.5	42	8.38	2.63	212.85	66.80	G	2.0	50	1 lb 8 oz
10	UCS-200-10S	5-200	6	45	8.38	2.63	212.85	66.80	G	2.0	50	1 lb 8 oz
15	UCS-200-15S	5-200	9	50	8.38	2.63	212.85	66.80	G	2.0	50	1 lb 8 oz

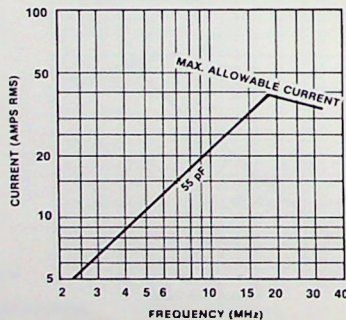
*C-Ceramic/G-Glass

GCS 55

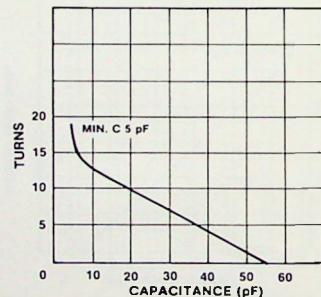


Mounting: Soldered-on flanges.

CONTINUOUS RMS AMPERES vs FREQUENCY (at 9kV PEAK WORKING VOLTAGE)

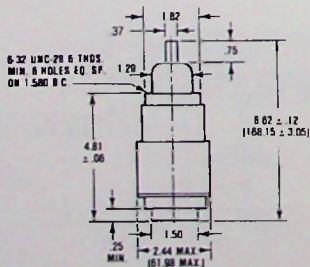


CAPACITY vs TURNS Typical Data



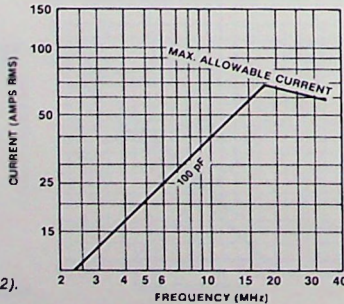
GCSN (Non-Magnetic) Available

CVDD 100

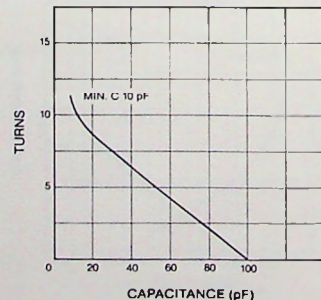


Mounting: Fixed end ferrule use FM1H flange (pg. 62). Variable end tapped holes.

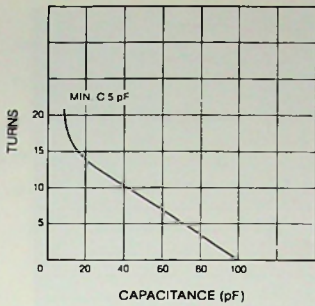
CONTINUOUS RMS AMPERES vs FREQUENCY (at 9kV PEAK WORKING VOLTAGE)



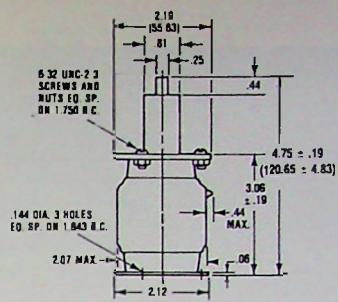
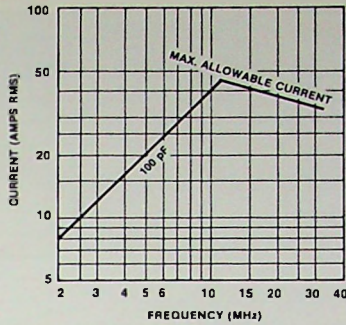
CAPACITY vs TURNS Typical Data



CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 9kV PEAK WORKING VOLTAGE)



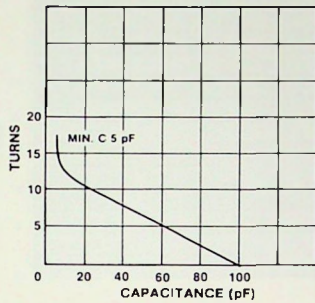
Mounting: Soldered-on flanges.

GCSN (Non-Magnetic) Available

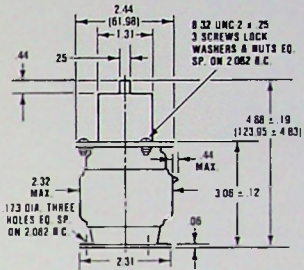
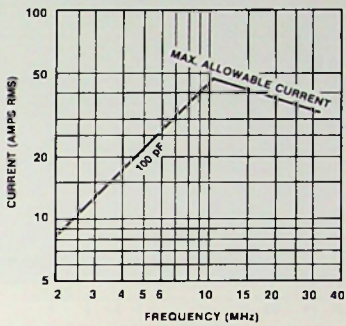
**GCS
100**



CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 9kV PEAK WORKING VOLTAGE)

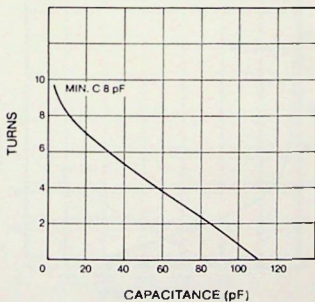


Mounting: Soldered-on flanges.

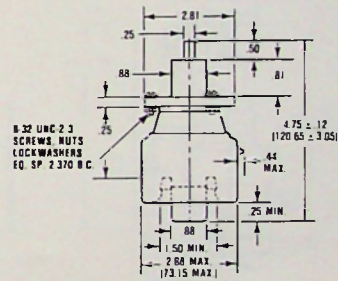
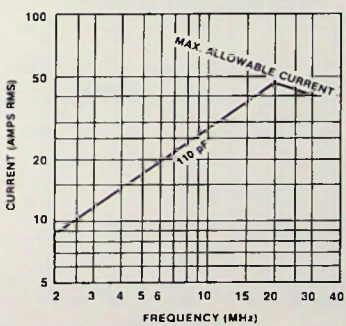
**UCSB
100**



CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 9kV PEAK WORKING VOLTAGE)

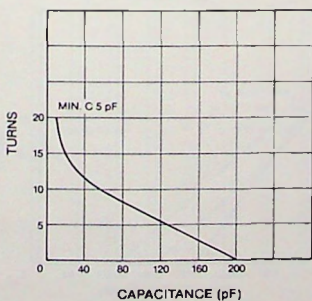


Mounting: Use flange FMOB on fixed end (pg. 62). Variable end has flange soldered-on.

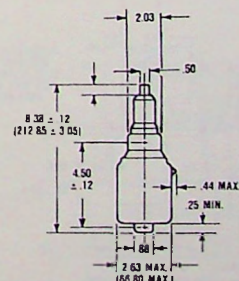
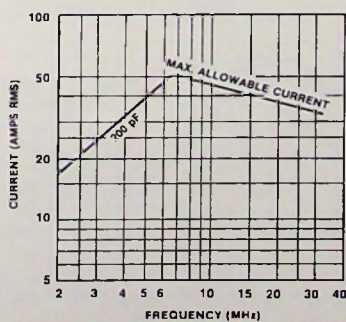
**UCSV
110**



CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 9kV PEAK WORKING VOLTAGE)



Mounting: Use flange FMOB on fixed end. Flange FM2 on variable end (pg. 62).

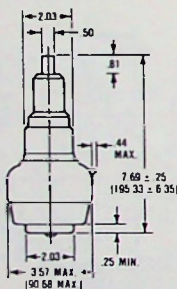
**UCS
200**



PEAK TEST VOLTAGE (kV)	MODEL NUMBER	CAPACITY RANGE (pF)	PEAK WORKING VOLT. (kV)	AMPS (RMS) MAX.	NOMINAL DIMENSIONS				TYPE (*)	TORQUE (In. Lbs.) MAX.	DIRECT PULL (Lbs. Max.)	WEIGHT (NOM.) Lbs.
					INCHES		MILLIMETERS					
					LENGTH	DIAMETER	LENGTH	DIAMETER				
7.5	UCSF-250-7.5S	5-250	4.5	45	7.69	3.57	195.33	90.68	G	2.5	58	2 lb 2 oz
10	UCSF-250-10S	5-250	6	50	7.69	3.57	195.33	90.68	G	2.5	58	2 lb 2 oz
15	UCSF-250-15S	5-250	9	55	7.69	3.57	195.33	90.68	G	2.5	58	2 lb 2 oz
7.5	UCS-300-7.5S	10-300	4.5	45	8.75	2.57	222.25	65.28	G	2.4	50	1 lb 11 oz
10	UCS-300-10S	10-300	6	50	8.75	2.57	222.25	65.28	G	2.4	50	1 lb 11 oz
15	UCS-300-15S	10-300	9	55	8.75	2.57	222.25	65.28	G	2.4	50	1 lb 11 oz
7.5	CVDD-300-7.5S	10-300	4.5	75	7.53	3.44	191.26	87.38	C	1.8	29	3 lb
10	CVDD-300-10S	10-300	6	80	7.53	3.44	191.26	87.38	C	1.8	29	3 lb
15	CVDD-300-15S	10-300	9	85	7.53	3.44	191.26	87.38	C	1.8	29	3 lb
7.5	UCS-400-7.5S	10-400	4.5	45	9.00	3.07	228.60	77.98	G	2.7	50	2 lb
10	UCS-400-10S	10-400	6	50	9.00	3.07	228.60	77.98	G	2.7	50	2 lb
15	UCS-400-15S	10-400	9	55	9.00	3.07	228.60	77.98	G	2.7	50	2 lb
7.5	CSVF-500-0007	12-500	4.5	55	7.88	3.50	200.15	88.90	C	2.3	50	3 lb
10	CSVF-500-0010	12-500	6	60	7.88	3.50	200.15	88.90	C	2.3	50	3 lb
15	CSVF-500-0015	12-500	9	65	7.88	3.50	200.15	88.90	C	2.3	50	3 lb
7.5	UCS-500-7.5S	25-500	4.5	50	9.00	3.07	228.60	77.98	G	2.7	50	2 lb
10	UCS-500-10S	25-500	6	55	9.00	3.07	228.60	77.98	G	2.7	50	2 lb
15	UCS-500-15S	25-500	9	60	9.00	3.07	228.60	77.98	G	2.7	50	2 lb
7.5	CVDD-500-7.5S	20-500	4.5	80	7.53	3.44	191.26	87.38	C	1.8	30	3 lb
10	CVDD-500-10S	20-500	6	90	7.53	3.44	191.26	87.38	C	1.8	30	3 lb
15	CVDD-500-15S	20-500	9	95	7.53	3.44	191.26	87.38	C	1.8	30	3 lb
10	UXC-500-10S	25-500	6	70	14.00	5.00	355.60	127.00	G	3.5	84	5 lb 10 oz
15	UXC-500-15S	25-500	9	75	14.00	5.00	355.60	127.00	G	3.5	84	5 lb 10 oz
20	UXC-500-20S	25-500	12	80	14.00	5.00	355.60	127.00	G	3.5	84	5 lb 10 oz
10	CVEP-500-10S	25-500	6	140	9.13	5.56	231.90	141.22	C	6	61	9 lb 4 oz
15	CVEP-500-15S	25-500	9	150	9.13	5.56	231.90	141.22	C	6	61	9 lb 4 oz
20	CVEP-500-20S	25-500	12	160	9.13	5.56	231.90	141.22	C	6	61	9 lb 4 oz

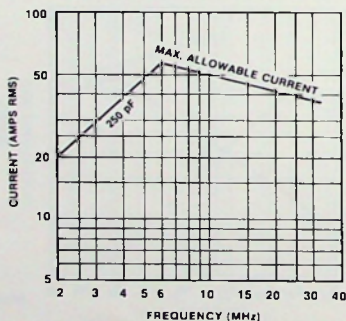
*C-Ceramic/G-Glass

UCSF 250

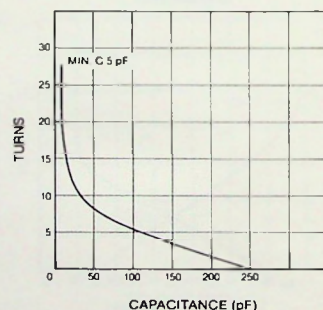


Mounting: Use flange FM2B on fixed end.
Flange FM2 on variable end (pg. 62).

CONTINUOUS RMS AMPERES vs FREQUENCY
(at 9kV PEAK WORKING VOLTAGE)

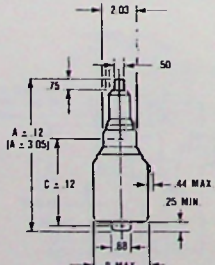


CAPACITY vs TURNS
Typical Data



UCSFN (Non-Magnetic) Available

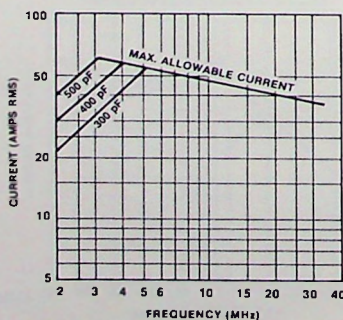
UCS 300, 400, 500



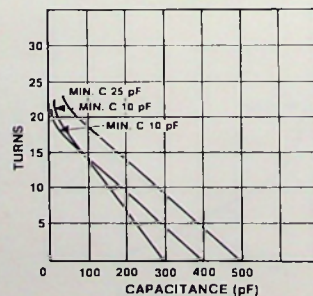
TYPE	A	B	C
UCS 300	8.75 (222.25)	2.57 (65.28)	4.67
UCS 400	9.00 (228.60)	3.07 (77.98)	4.81
UCS 500	9.00 (228.60)	3.07 (77.98)	4.81

Mounting: Use flange FMOB on fixed end.
Flange FM2 on variable end (pg. 62).

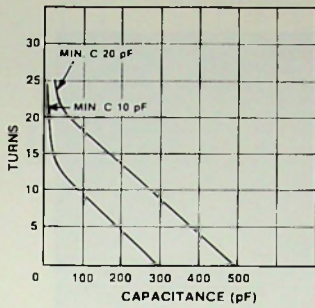
CONTINUOUS RMS AMPERES vs FREQUENCY
(at 9kV PEAK WORKING VOLTAGE)



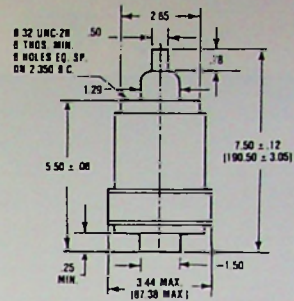
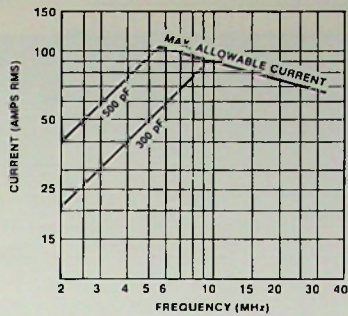
CAPACITY vs TURNS
Typical Data



CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 9kV PEAK WORKING VOLTAGE)

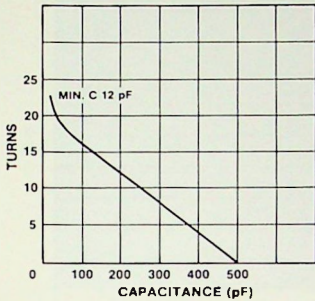


CVDD
300, 500

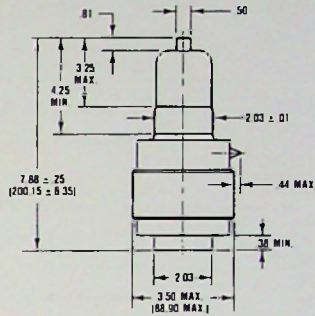
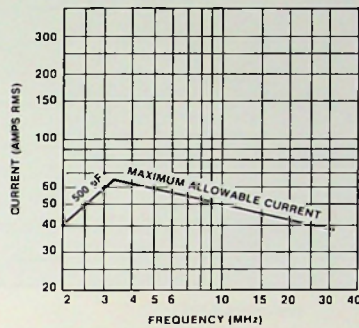


Mounting: Use flange FM1H on fixed end (pg. 62).
Variable end tapped holes.

CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 9kV PEAK WORKING VOLTAGE)

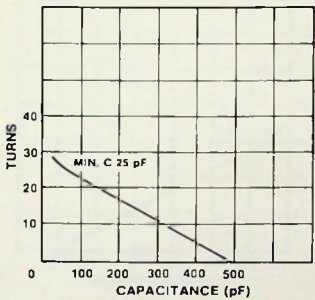


CSVF
500

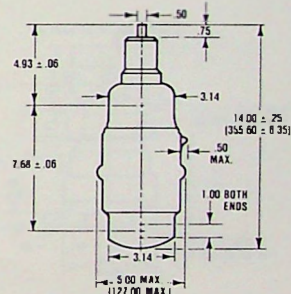
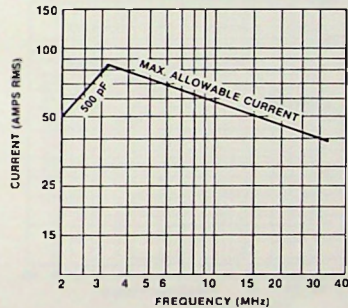


Mounting: Use flange FM2S on fixed end.
Flange FM2 on variable end (pg. 62).

CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 12kV PEAK WORKING VOLTAGE)

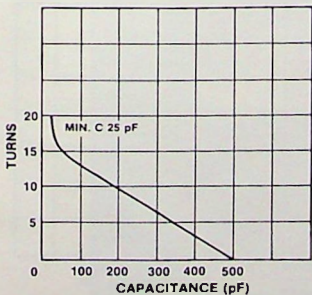


UXC
500

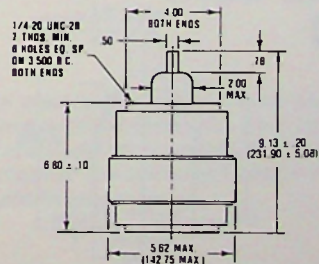
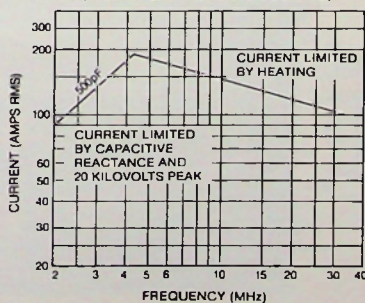


Mounting: Use flange FM3B on fixed end.
Flange FM3B on variable end (pg. 62).

CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 12kV PEAK WORKING VOLTAGE)



CVEP
500

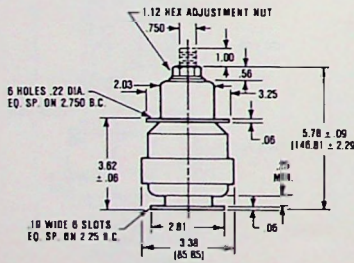


Mounting: Both ends have tapped holes.

PEAK TEST VOLTAGE (kV)	MODEL NUMBER	CAPACITY RANGE (pF)	PEAK WORKING VOLT. (kV)	AMPS (RMS) MAX.	NOMINAL DIMENSIONS				TYPE (*)	TORQUE (In. Lbs.) MAX.	DIRECT PULL (Lbs. Max.)	WEIGHT (NOM.) Lbs.
					INCHES		MILLIMETERS					
					LENGTH	DIAMETER	LENGTH	DIAMETER				
10	CADA-600-10S	40-600	6	75	5.78	3.38	146.81	85.85	C	†	†	2 lb 12 oz
15	CADA-600-15S	40-600	9	80	5.78	3.38	146.81	85.85	C	†	†	2 lb 12 oz
7.5	UCSX-700-7.5S	25-700	4.5	60	9.62	3.75	244.35	95.25	G	3.7	70	3 lb 9 oz
10	UCSX-700-10S	25-700	6	65	9.62	3.75	244.35	95.25	G	3.7	70	3 lb 9 oz
15	UCSX-700-15S	25-700	9	70	9.62	3.75	244.35	95.25	G	3.7	70	3 lb 9 oz
7.5	CVDD-750-7.5S	25-750	4.5	130	8.00	4.56	203.20	115.82	C	4.2	68	6 lb 13 oz
10	CVDD-750-10S	25-750	6	140	8.00	4.56	203.20	115.82	C	4.2	68	6 lb 13 oz
15	CVDD-750-15S	25-750	9	150	8.00	4.56	203.20	115.82	C	4.2	68	6 lb 13 oz
10	CVEP-1000-10S	50-1000	6	150	10.20	7.20	259.08	182.88	C	9.2	96	17 lb 10 oz
15	CVEP-1000-15S	50-1000	9	165	10.20	7.20	259.08	182.88	C	9.2	96	17 lb 10 oz
20	CVEP-1000-20S	50-1000	12	180	10.20	7.20	259.08	182.88	C	9.2	96	17 lb 10 oz
7.5	UCSX-1000-7.5S	25-1000	4.5	60	9.81	3.75	249.17	95.25	G	4.4	85	3 lb 9 oz
10	UCSX-1000-10S	25-1000	6	65	9.81	3.75	249.17	95.25	G	4.4	85	3 lb 9 oz
15	UCSX-1000-15S	25-1000	9	70	9.81	3.75	249.17	95.25	G	4.4	85	3 lb 9 oz
7.5	CVDD-1000-7.5S	25-1000	4.5	130	8.00	4.56	203.20	115.82	C	4.2	68	6 lb 13 oz
10	CVDD-1000-10S	25-1000	6	140	8.00	4.56	203.20	115.82	C	4.2	68	6 lb 13 oz
15	CVDD-1000-15S	25-1000	9	150	8.00	4.56	203.20	115.82	C	4.2	68	6 lb 13 oz
10	VMMC-1000-10S	50-1000	6	150	14.88	6.13	377.95	155.70	G	9.8	120	13 lb 8 oz
15	VMMC-1000-15S	50-1000	9	160	14.88	6.13	377.95	155.70	G	9.8	120	13 lb 8 oz

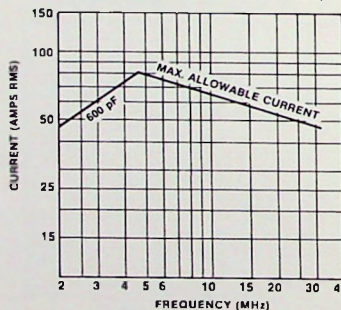
*C-Ceramic/G-Glass † Adjustable unit with locking position

CADA 600

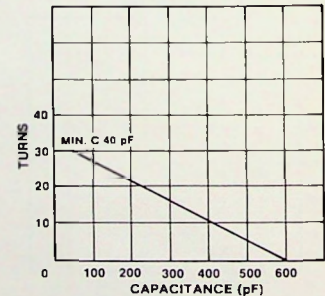


Mounting: Has soldered-on flanges. Adjustable unit with locking position.

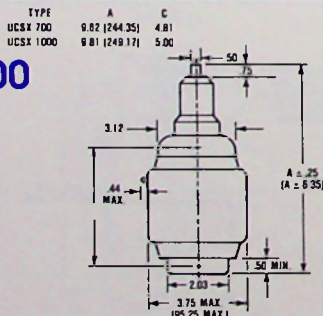
CONTINUOUS RMS AMPERES vs FREQUENCY (at 9kV PEAK WORKING VOLTAGE)



CAPACITY vs TURNS Typical Data

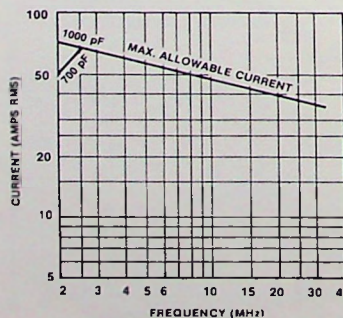


UCSX 700, 1000

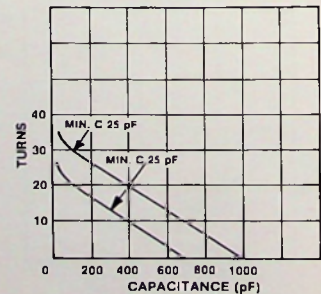


Mounting: Use flange FM2B on fixed end. Flange FM3B on variable end (pg. 62).

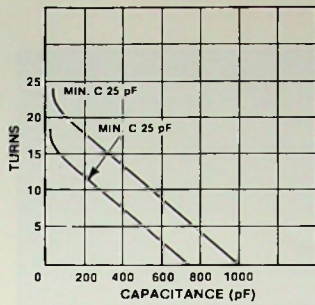
CONTINUOUS RMS AMPERES vs FREQUENCY (at 9kV PEAK WORKING VOLTAGE)



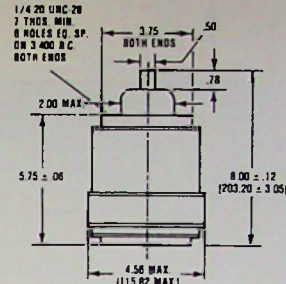
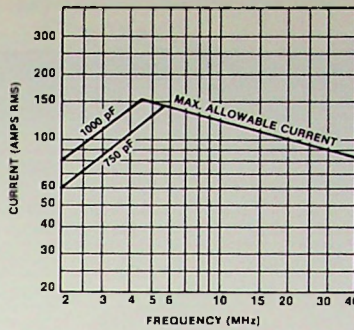
CAPACITY vs TURNS Typical Data



CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 9kV PEAK WORKING VOLTAGE)

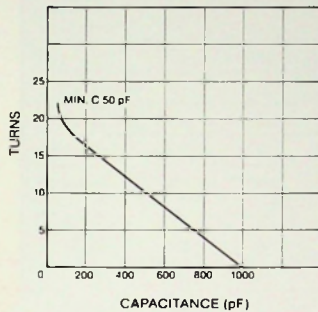


CVDD
750, 1000

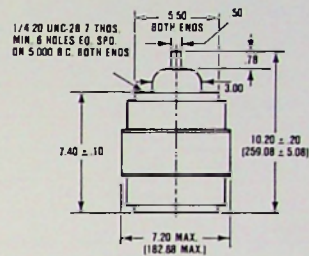
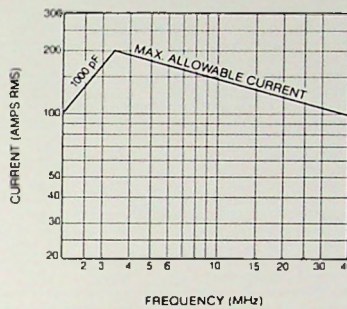


Mounting: Both ends have tapped holes.

CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 12kV PEAK WORKING VOLTAGE)

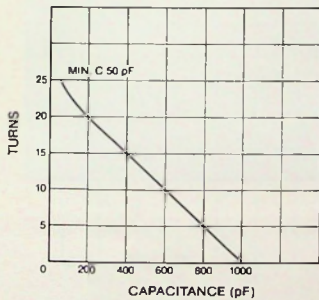


CVEP
1000

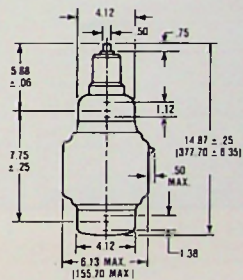
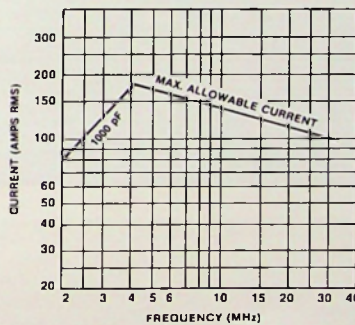


Mounting: Both ends have tapped holes.

CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 9kV PEAK WORKING VOLTAGE)



VMMC
1000



Mounting: Use flange FM4 on fixed end.
Flange FM4 on variable end (pg. 62).

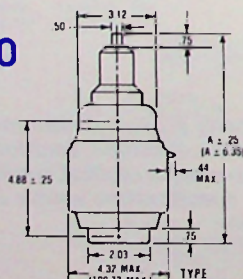


Jennings maintains a quality assurance program in accordance with MIL-I-45208A. Each lot manufactured is tested and inspected to applicable military specifications, customer specifications and/or Jennings rigorous requirements.

PEAK TEST VOLTAGE (kV)	MODEL NUMBER	CAPACITY RANGE (pF)	PEAK WORKING VOLT. (kV)	AMPS (RMS) MAX.	NOMINAL DIMENSIONS				TYPE (°)	TORQUE (In. Lbs.) MAX.	DIRECT PULL (Lbs. Max.)	WEIGHT (NOM.) Lbs.
					INCHES		MILLIMETERS					
					LENGTH	DIAMETER	LENGTH	DIAMETER				
7.5	UCSXF-1000-7.5S	12-1000	4.5	60	9.94	4.32	252.48	109.73	G	3.0	72	4 lb 4 oz
10	UCSXF-1000-10S	12-1000	6	65	9.94	4.32	252.48	109.73	G	3.0	72	4 lb 4 oz
15	UCSXF-1000-15S	12-1000	9	70	9.94	4.32	252.48	109.73	G	3.0	72	4 lb 1 oz
7.5	UCSXF-1200-7.5S	15-1200	4.5	60	10.00	4.32	254.00	109.73	G	4.2	82	4 lb 4 oz
10	UCSXF-1200-10S	15-1200	6	65	10.00	4.32	254.00	109.73	G	4.2	82	4 lb 4 oz
15	UCSXF-1200-15S	15-1200	9	70	10.00	4.32	254.00	109.73	G	4.2	82	4 lb 4 oz
7.5	UCSXF-1500-7.5S	20-1500	4.5	60	9.94	5.13	252.48	130.30	G	4.2	80	5 lb 8 oz
10	UCSXF-1500-10S	20-1500	6	65	9.94	5.13	252.48	130.30	G	4.2	80	5 lb 8 oz
12	UCSXF-1500-12S	20-1500	7.2	70	9.94	5.13	252.48	130.30	G	4.2	80	5 lb 8 oz
7.5	CVDP-1500-7.5S	35-1500	4.5	150	9.80	5.56	248.92	141.22	C	8.0	84	9 lb 14 oz
10	CVDP-1500-10S	35-1500	6	155	9.80	5.56	248.92	141.22	C	8.0	84	9 lb 14 oz
15	CVDP-1500-15S	35-1500	9	160	9.80	5.56	248.92	141.22	C	8.0	84	9 lb 14 oz
10	CVEP-1500-10S	100-1500	6	190	10.20	7.20	259.08	182.88	C	13	144	18 lb 2 oz
15	CVEP-1500-15S	100-1500	9	200	10.20	7.20	259.08	182.88	C	13	144	18 lb 2 oz
20	CVEP-1500-20S	100-1500	12	210	10.20	7.20	259.08	182.88	C	13	144	18 lb 2 oz
10	CVEP-2000-10S	100-2000	6	190	10.20	7.20	259.08	182.88	C	13	144	18 lb 2 oz
15	CVEP-2000-15S	100-2000	9	200	10.20	7.20	259.08	182.88	C	13	144	18 lb 2 oz
10	VMMC-2000-10S	100-2000	6	190	15.62	6.13	396.75	155.70	G	16	168	15 lb 4 oz
15	VMMC-2000-15S	100-2000	9	200	15.62	6.13	396.75	155.70	G	16	168	15 lb 4 oz
7.5	UCSXF-2000-7.5S	50-2000	4.5	60	10.06	5.13	255.52	130.30	G	4.2	85	5 lb 8 oz
10	UCSXF-2000-10S	50-2000	6	65	10.06	5.13	255.52	130.30	G	4.2	85	5 lb 8 oz
12	UCSXF-2000-12S	50-2000	7.2	70	10.06	5.13	255.52	130.30	G	4.2	85	5 lb 8 oz
7.5	UCSXF-2300-7.5S	50-2300	4.5	60	10.00	5.13	254.00	130.30	G	6.3	125	5 lb 8 oz
10	UCSXF-2300-10S	50-2300	6	65	10.00	5.13	254.00	130.30	G	6.3	125	5 lb 8 oz
12	UCSXF-2300-12S	50-2300	7.2	70	10.00	5.13	254.00	130.30	G	6.3	125	5 lb 8 oz
7.5	CVDP-2300-7.5S	50-2300	4.5	150	9.80	5.56	248.92	141.22	C	8	84	9 lb 14 oz
10	CVDP-2300-10S	50-2300	6	155	9.80	5.56	248.92	141.22	C	8	84	9 lb 14 oz
15	CVDP-2300-15S	50-2300	9	160	9.80	5.56	248.92	141.22	C	8	84	9 lb 14 oz

*C-Ceramic/G-Glass

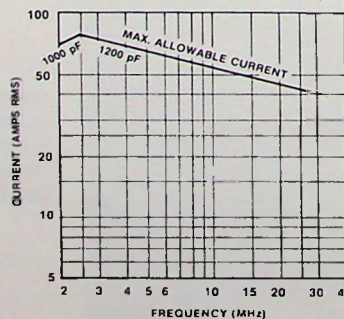
UCSXF 1000, 1200



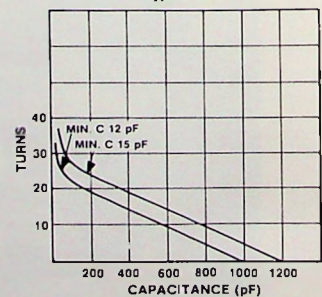
TYPE	A
UCSXF 1000	9.94 (252.48)
UCSXF 1200	10.00 (254.06)

Mounting: Use flange FM2B on fixed end.
Flange FM3B on variable end (pg. 62).

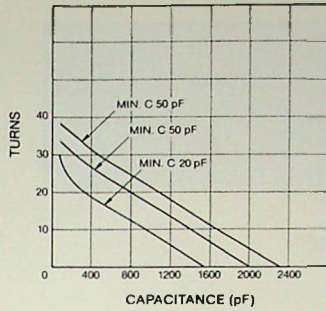
CONTINUOUS RMS AMPERES vs FREQUENCY
(at 9kV PEAK WORKING VOLTAGE)



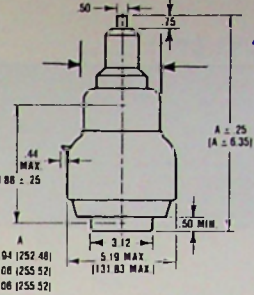
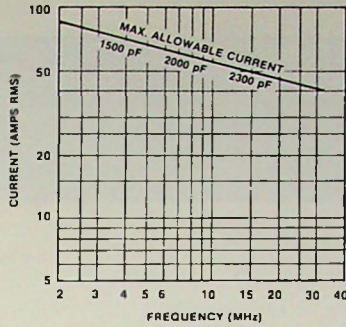
CAPACITY vs TURNS
Typical Data



CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 7.2kV PEAK WORKING VOLTAGE)

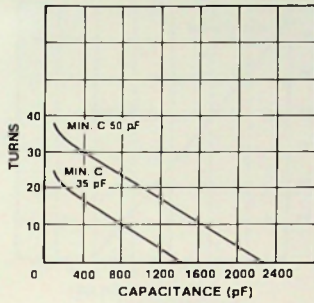


UCSXF
1500, 2000,
2300

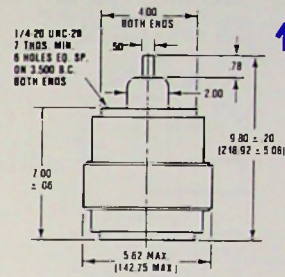
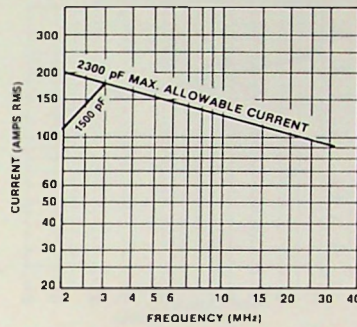


Mounting: Use flange FM3C on fixed end.
Flange FM3B on variable end (pg. 62).

CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 9kV PEAK WORKING VOLTAGE)

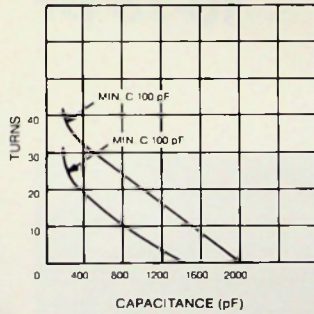


CVDP
1500, 2300

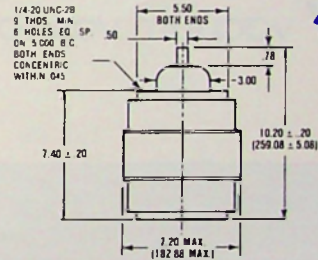
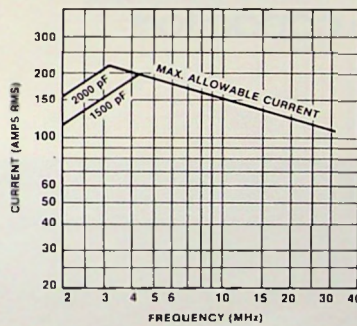


Mounting: Both ends have tapped holes.

CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 9kV PEAK WORKING VOLTAGE)

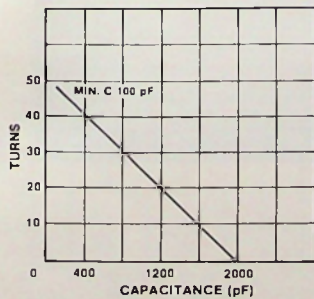


CVEP
1500, 2000

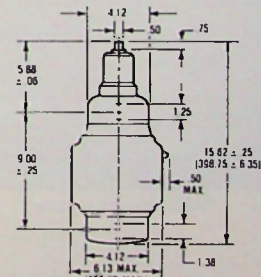
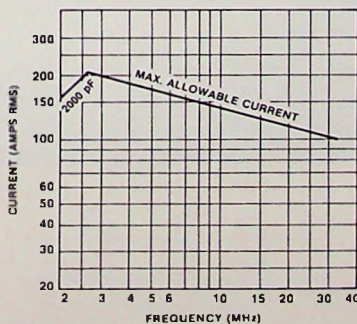


Mounting: Both ends have tapped holes.

CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 9kV PEAK WORKING VOLTAGE)



VMMC
2000



Mounting: Use flange MF4 on fixed end.
Flange FM4 on variable end (pg. 62).

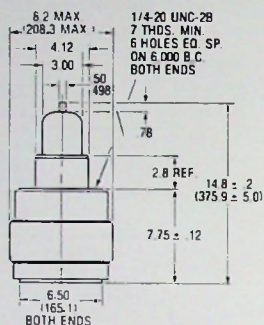
7.5-20kV vacuum variable capacitors

5000 pF

PEAK TEST VOLTAGE (kV)	MODEL NUMBER	CAPACITY RANGE (pF)	PEAK WORKING VOLT. (kV)	AMPS (RMS) MAX.	NOMINAL DIMENSIONS				TYPE (°)	TORQUE (In. Lbs.) MAX.	DIRECT PULL (Lbs. Max.)	WEIGHT (NOM.) Lbs.
					INCHES		MILLIMETERS					
					LENGTH	DIAMETER	LENGTH	DIAMETER				
7.5	CVED-5000-0007	100-5000	4.5	225	21.31	9.25	541.27	234.95	C	17	228	35 lb
10	CVED-5000-0010	100-5000	6	240	21.31	9.25	541.27	234.95	C	17	228	35 lb
15	CVED-5000-0015	100-5000	9	250	21.31	9.25	541.27	234.95	C	17	228	35 lb

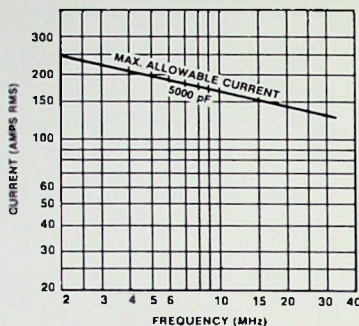
*C-Ceramic/G-Glass

CVED 5000

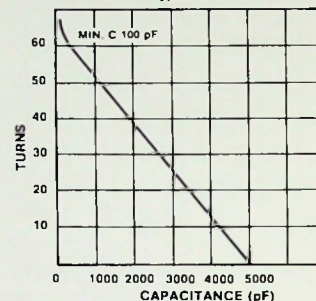


Mounting: Both ends have tapped holes.

CONTINUOUS RMS AMPERES vs FREQUENCY (at 9kV PEAK WORKING VOLTAGE)



CAPACITY vs TURNS Typical Data



20-60kV vacuum variable capacitors

10-75 pF

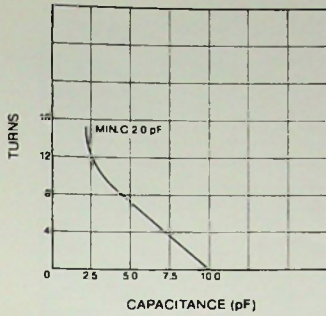
PEAK TEST VOLTAGE (kV)	MODEL NUMBER	CAPACITY RANGE (pF)	PEAK WORKING VOLT. (kV)	AMPS (RMS) MAX.	NOMINAL DIMENSIONS				TYPE (°)	TORQUE (In. Lbs.) MAX.	DIRECT PULL (Lbs. Max.)	WEIGHT (NOM.) Lbs.
					INCHES		MILLIMETERS					
					LENGTH	DIAMETER	LENGTH	DIAMETER				
25	CAEB-10-0025	2-10	15	17	4.35	1.31	110.48	33.27	C	1.5	20	5 oz
20	CVFNP-50-0020**	10-50	12	13	5.10	4.00	129.50	101.60	C	N/A	50	3 lb 3 oz
25	CVFNP-50-0025**	10-50	15	16	5.10	4.00	129.50	101.60	C	N/A	50	3 lb 3 oz
30	CVFNP-50-0030**	10-50	18	20	5.10	4.00	129.50	101.60	C	N/A	50	3 lb 3 oz
20	CVFA-75-0020	7-75	12	33	8.75	2.66	222.25	67.56	C	2.5	50	2 lb 9 oz
25	CVFA-75-0025	7-75	15	42	8.75	2.66	222.25	67.56	C	2.5	50	2 lb 9 oz
30	CVFA-75-0030	7-75	18	50	8.75	2.66	222.25	67.56	C	2.5	50	2 lb 9 oz
35	UHC-75-35S	10-75	21	60	11.44	5.00	290.58	127.00	G	1.5	42	2 lb 9 oz
45	UHC-75-45S	10-75	27	65	11.44	5.00	290.58	127.00	G	1.5	42	2 lb 9 oz
55	UHC-75-55S	10-75	33	70	11.44	5.00	290.58	127.00	G	1.5	42	2 lb 9 oz
60	UHC-75-60S	10-75	36	75	11.44	5.00	290.58	127.00	G	1.5	42	2 lb 9 oz

*C-Ceramic/G-Glass

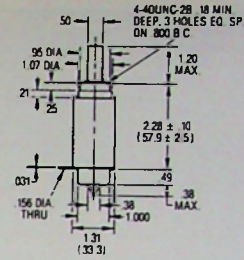
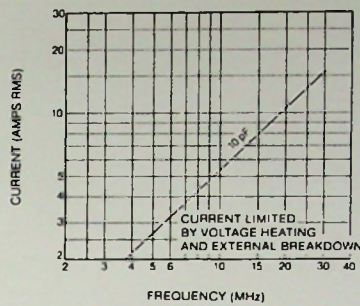
**Neutralizing Capacitor

CAEB 10

CAPACITY vs TURNS
Typical Data

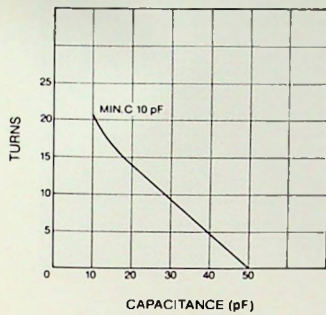


CONTINUOUS RMS AMPERES vs FREQUENCY
(at 12kV PEAK WORKING VOLTAGE)

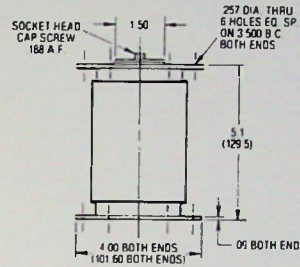
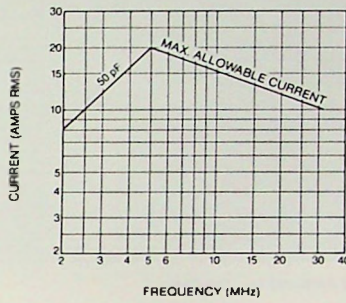


Mounting: Variable end has tapped holes.
Fixed end has tab.

CAPACITY vs TURNS
Typical Data



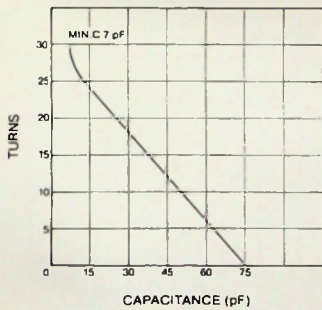
CONTINUOUS RMS AMPERES vs FREQUENCY
(at 18kV PEAK WORKING VOLTAGE)



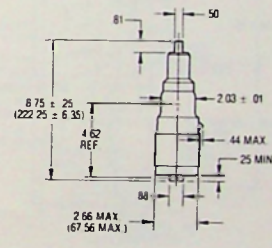
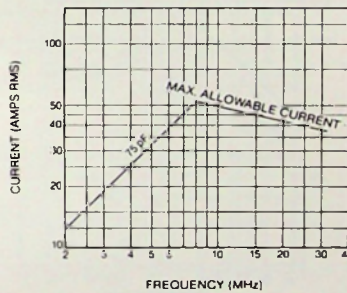
Mounting: Both ends have mounting holes.

CVFNP 50**

CAPACITY vs TURNS
Typical Data



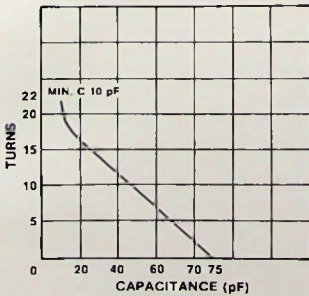
CONTINUOUS RMS AMPERES vs FREQUENCY
(at 18kV PEAK WORKING VOLTAGE)



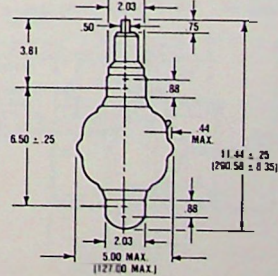
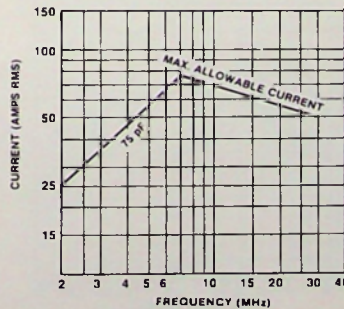
Mounting: Use flange FMOB on fixed end.
FM2 on variable end (pg. 62).

CVFA 75

CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 36kV PEAK WORKING VOLTAGE)



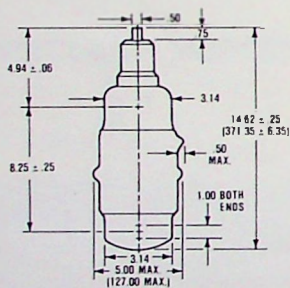
Mounting: Both ends use Jennings
FM2D flange (pg. 62).

UHC 75

PEAK TEST VOLTAGE (kV)	MODEL NUMBER	CAPACITY RANGE (pF)	PEAK WORKING VOLT. (kV)	AMPS (RMS) MAX.	NOMINAL DIMENSIONS				TYPE (*)	TORQUE (In. Lbs.) MAX.	DIRECT PULL (Lbs. Max.)	WEIGHT (NOM.) Lbs.
					INCHES		MILLIMETERS					
					LENGTH	DIAMETER	LENGTH	DIAMETER				
35	UXHC-150-35S	25-150	21	80	14.62	5.00	371.35	127.00	G	4.2	80	4 lb 9 oz
45	UXHC-150-45S	25-150	27	85	14.62	5.00	371.35	127.00	G	4.2	80	4 lb 9 oz
55	UXHC-150-55S	25-150	33	90	14.62	5.00	371.35	127.00	G	4.2	80	4 lb 9 oz
35	VMMHC-250-35S	10-250	21	140	15.50	7.00	393.70	177.80	G	16	144	13 lb 4 oz
45	VMMHC-250-45S	10-250	27	150	15.50	7.00	393.70	177.80	G	16	144	13 lb 4 oz
55	VMMHC-250-55S	10-250	33	160	15.50	7.00	393.70	177.80	G	16	144	13 lb 4 oz
30	CVFP-250-30S	15-250	18	140	9.60	5.56	243.84	141.22	C	5.6	94	9 lb 7 oz
35	CVFP-250-35S	15-250	21	150	9.60	5.56	243.84	141.22	C	5.6	94	9 lb 7 oz
40	CVFP-250-40S	15-250	24	160	9.60	5.56	243.84	141.22	C	5.6	94	9 lb 7 oz
45	CVHP-250-45S	10-250	27	190	11.90	7.20	302.26	182.88	C	13	156	17 lb 15 oz
50	CVHP-250-50S	10-250	30	200	11.90	7.20	302.26	182.88	C	13	156	17 lb 15 oz
55	CVHP-250-55S	10-250	33	210	11.90	7.20	302.26	182.88	C	13	156	17 lb 15 oz
45	CVHP-450-45S	25-450	27	200	11.90	7.20	302.26	182.88	C	13	134	18 lb 8 oz
50	CVHP-450-50S	25-450	30	210	11.90	7.20	302.26	182.88	C	13	134	18 lb 8 oz
55	CVHP-450-55S	25-450	33	220	11.90	7.20	302.26	182.88	C	13	134	18 lb 8 oz
30	CVFP-450-30S	25-450	18	150	9.60	5.56	243.84	141.22	C	6.8	94	9 lb 7 oz
35	CVFP-450-35S	25-450	21	160	9.60	5.56	243.84	141.22	C	6.8	94	9 lb 7 oz
40	CVFP-450-40S	25-450	24	170	9.60	5.56	243.84	141.22	C	6.8	94	9 lb 7 oz
35	VMMHC-450-35S	25-450	21	180	16.00	7.00	406.40	177.80	G	16	138	14 lb 8 oz
45	VMMHC-450-45S	25-450	27	190	16.00	7.00	406.40	177.80	G	16	138	14 lb 8 oz
55	VMMHC-450-55S	25-450	33	200	16.00	7.00	406.40	177.80	G	16	138	14 lb 8 oz
40	CWV2-450-0040	25-450	24	750†	17.90	7.56	454.7	192.02	C	20	N/A	19 lb 2 oz
45	CWV2-450-0045	25-450	27	770†	17.90	7.56	454.7	192.02	C	20	N/A	19 lb 2 oz
50	CWV2-450-0050	25-450	30	790†	17.90	7.56	454.7	192.02	C	20	N/A	19 lb 2 oz
45	CVHE-650-45S	25-650	27	325††	12.50	7.20	317.50	182.88	C	N/A	100	22 lb
50	CVHE-650-50S	25-650	30	350††	12.50	7.20	317.50	182.88	C	N/A	100	22 lb
55	CVHE-650-55S	25-650	33	375††	12.50	7.20	317.50	182.88	C	N/A	100	22 lb

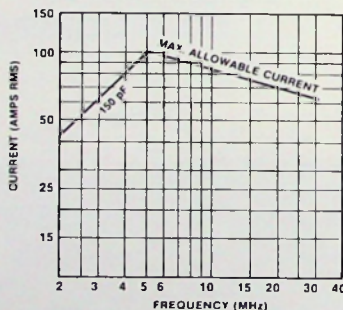
*C-Ceramic/G-Glass † Water Cooling—See Page 7 †† Forced Air Cooling—See Page 7

UXHC 150

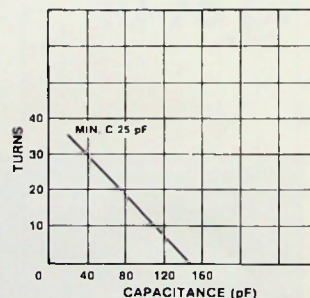


Mounting: Use flange FM3B on fixed end.
Flange FM3B on variable end (pg. 62).

CONTINUOUS RMS AMPERES vs FREQUENCY (at 33kV PEAK WORKING VOLTAGE)



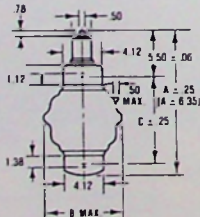
CAPACITY vs TURNS Typical Data



VMMHC 250, 450

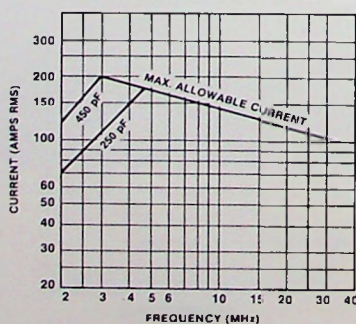


TYPE	A	B	C
VMMHC 250	15.50 (393.70)	7.00 (177.80)	8.50
VMMHC 450	16.00 (406.40)	7.00 (177.80)	8.75

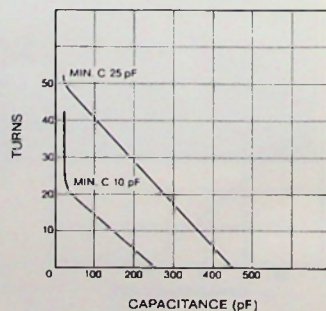


Mounting: Use flange FM4 on fixed end.
Flange FM4 on variable end (pg. 62).

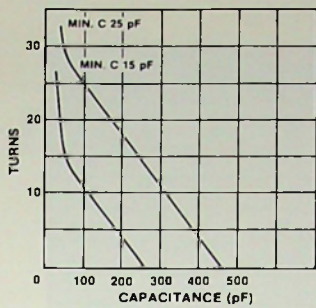
CONTINUOUS RMS AMPERES vs FREQUENCY (at 33kV PEAK WORKING VOLTAGE)



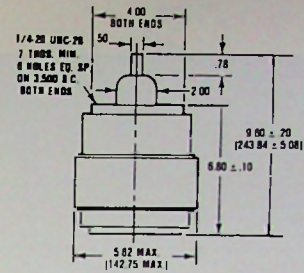
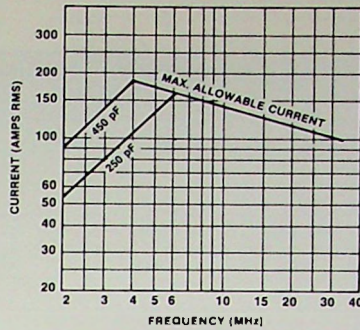
CAPACITY vs TURNS Typical Data



CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 24kV PEAK WORKING VOLTAGE)

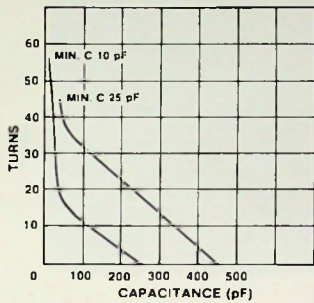


CVFP
250, 450

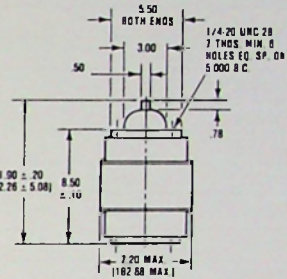
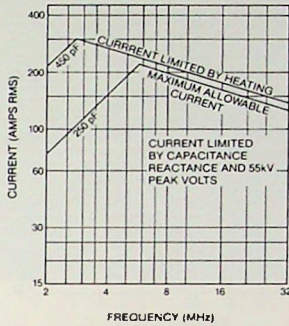


Mounting: Both ends have tapped holes.

CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 33 kV PEAK WORKING VOLTAGE)

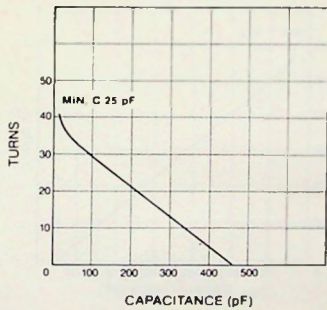


CVHP
250, 450

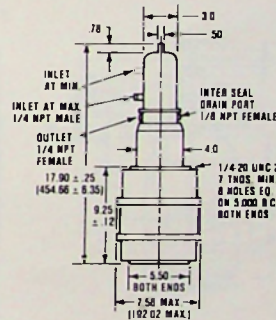
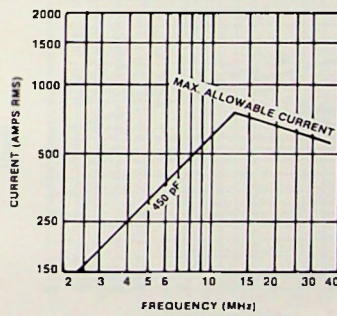


Mounting: Both ends have tapped holes.

CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 30kV PEAK WORKING VOLTAGE)

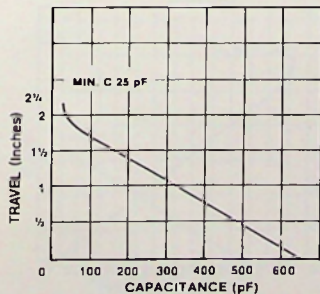


CWV2
450

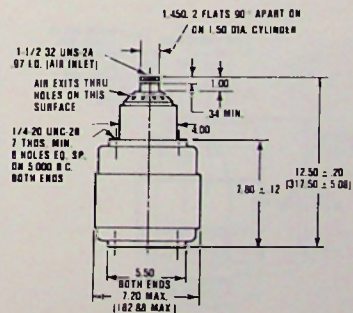
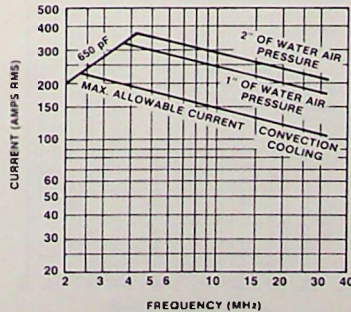


Mounting: Both ends have tapped holes.

CAPACITY vs TRAVEL
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 33kV PEAK WORKING VOLTAGE)



CVHE
650

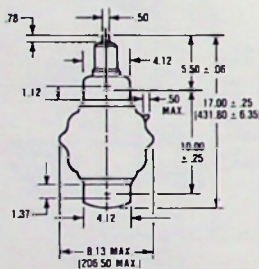


Mounting: Both ends have tapped holes.

PEAK TEST VOLTAGE (kV)	MODEL NUMBER	CAPACITY RANGE (pF)	PEAK WORKING VOLT. (kV)	AMPS (RMS) MAX.	NOMINAL DIMENSIONS				TYPE (*)	TORQUE (In. Lbs.) MAX.	DIRECT PULL (Lbs. Max.)	WEIGHT (NOM.) Lbs.
					INCHES		MILLIMETERS					
					LENGTH	DIAMETER	LENGTH	DIAMETER				
35	VMMHC-650-35S	30-650	21	160	17.00	8.13	431.80	206.50	G	16	264	16 lbs 10 oz
45	VMMHC-650-45S	30-650	27	180	17.00	8.13	431.80	206.50	G	16	264	16 lb 10 oz
55	VMMHC-650-55S	30-650	33	200	17.00	8.13	431.80	206.50	G	16	264	16 lb 10 oz
45	CVHP-650-45S	30-650	27	220	11.90	7.20	302.26	182.88	C	13	180	19 lb
50	CVHP-650-50S	30-650	30	230	11.90	7.20	302.26	182.88	C	13	180	19 lb
55	CVHP-650-55S	30-650	33	240	11.90	7.20	302.26	182.88	C	13	180	19 lb
40	CWV2-650-0040	30-650	24	800†	17.90	7.56	454.66	192.02	C	20	N/A	19 lb 2 oz
45	CWV2-650-0045	30-650	27	820†	17.90	7.56	454.66	192.02	C	20	N/A	19 lb 2 oz
50	CWV2-650-0050	30-650	30	840†	17.90	7.56	454.66	192.02	C	20	N/A	19 lb 2 oz
30	CVFP-750-30S	20-750	18	200	11.70	7.20	297.18	182.88	C	9	134	17 lb 13 oz
35	CVFP-750-35S	20-750	21	210	11.70	7.20	297.18	182.88	C	9	134	17 lb 13 oz
40	CVFP-750-40S	20-750	24	220	11.70	7.20	297.18	182.88	C	9	134	17 lb 13 oz
30	CVFP-1000-30S	35-1000	18	215	11.70	7.20	297.18	182.88	C	10	150	18 lb 2 oz
35	CVFP-1000-35S	35-1000	21	220	11.70	7.20	297.18	182.88	C	10	150	18 lb 2 oz
40	CVFP-1000-40S	35-1000	24	225	11.70	7.20	297.18	182.88	C	10	150	18 lb 2 oz
40	CVHP-1000-40S	60-1000	24	230	14.50	8.00	368.30	203.20	C	12	168	28 lb 4 oz
45	CVHP-1000-45S	60-1000	27	240	14.50	8.00	368.30	203.20	C	12	168	28 lb 4 oz
50	CVHP-1000-50S	60-1000	30	250	14.50	8.00	368.30	203.20	C	12	168	28 lb 4 oz

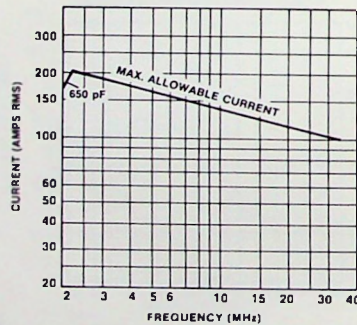
*C-Ceramic/G-Glass † Water Cooling—See Page 7

VMMHC 650

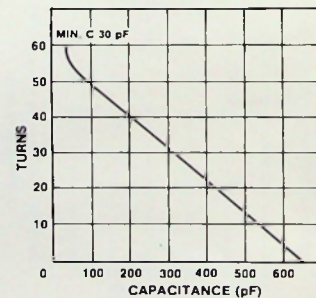


Mounting: Use flange FM4 on fixed end.
Flange FM4 on variable end (pg. 62).

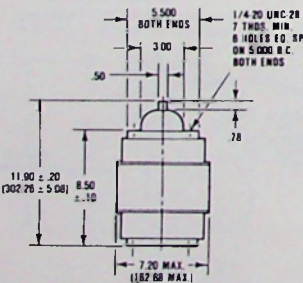
CONTINUOUS RMS AMPERES vs FREQUENCY (at 33kV PEAK WORKING VOLTAGE)



CAPACITY vs TURNS Typical Data

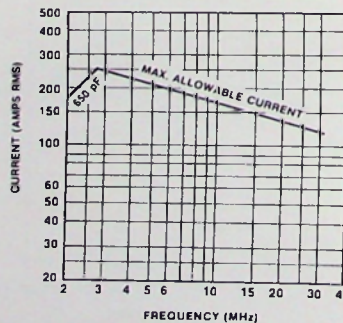


CVHP 650

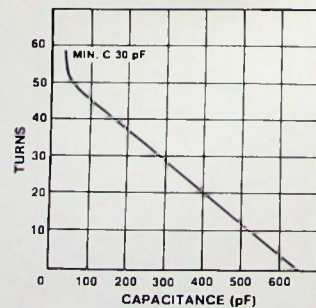


Mounting: Both ends have tapped holes.

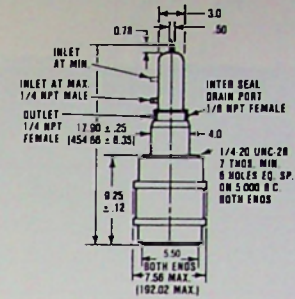
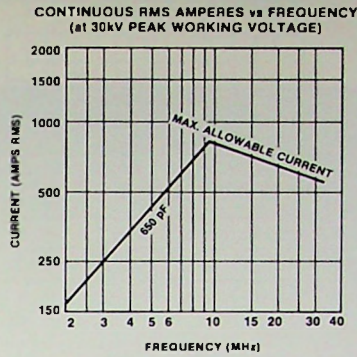
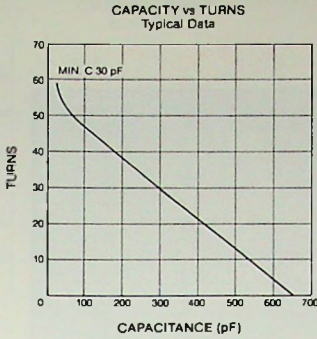
CONTINUOUS RMS AMPERES vs FREQUENCY (at 33kV PEAK WORKING VOLTAGE)



CAPACITY vs TURNS Typical Data

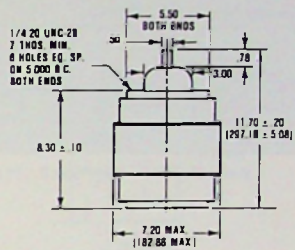
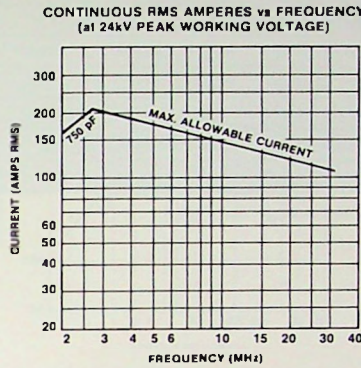
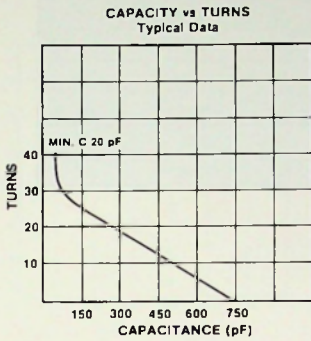


CW2 650



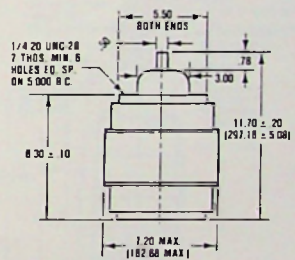
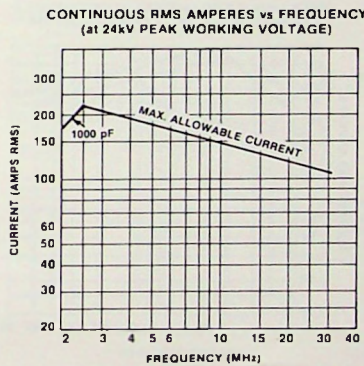
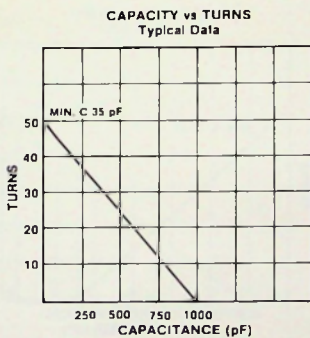
Mounting: Both ends have tapped holes.

CVFP 750



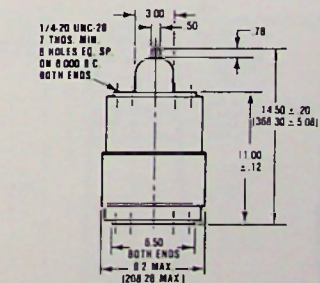
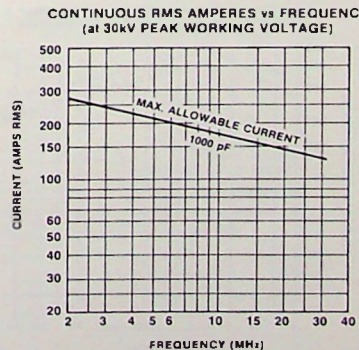
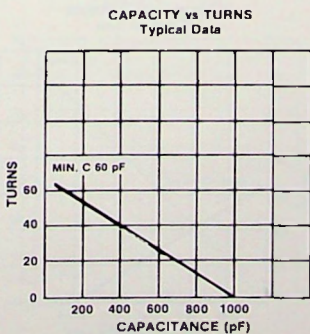
Mounting: Both ends have lapped holes.

CVFP 1000



Mounting: Both ends have lapped holes.

CVHP 1000

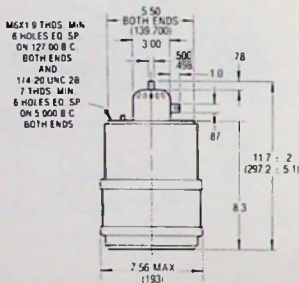


Mounting: Both ends have lapped holes.

PEAK TEST VOLTAGE (kV)	MODEL NUMBER	CAPACITY RANGE (pF)	PEAK WORKING VOLT. (kV)	AMPS (RMS) MAX.	NOMINAL DIMENSIONS				TYPE (*)	TORQUE (In. Lbs.) MAX.	DIRECT PULL (Lbs. Max.)	WEIGHT (NOM.) Lbs.
					INCHES		MILLIMETERS					
					LENGTH	DIAMETER	LENGTH	DIAMETER				
30	CAV2-1000-0030	35-1000	18	400††	11.70	7.56	297.20	193.00	C	13	N/A	18 lb 2 oz
35	CAV2-1000-0035	35-1000	21	410††	11.70	7.56	297.20	193.00	C	13	N/A	18 lb 2 oz
40	CAV2-1000-0040	35-1000	24	425††	11.70	7.56	297.20	193.00	C	13	N/A	18 lb 2 oz
40	CAV3-1000-0040	40-1000	24	480††	14.50	8.56	368.30	218.00	C	13	N/A	28 lb 4 oz
45	CAV3-1000-0045	40-1000	27	490††	14.50	8.56	368.30	218.00	C	13	N/A	28 lb 4 oz
50	CAV3-1000-0050	40-1000	30	500††	14.50	8.56	368.30	218.00	C	13	N/A	28 lb 4 oz
45	CAV1-1000-0045	60-1000	27	235††	14.50	8.56	368.30	217.42	C	20	200	28 lb
40	CWV1-1000-0040	100-1000	24	800†	21.60	8.56	548.64	217.42	C	23	N/A	37 lb
45	CWV1-1000-0045	100-1000	27	820†	21.60	8.56	548.64	217.42	C	23	N/A	37 lb
50	CWV1-1000-0050	100-1000	30	840†	21.60	8.56	548.64	217.42	C	23	N/A	37 lb
45	CVHC-1200-45S	100-1200	27	450††	17.80	8.20	452.12	203.20	C	N/A	160	35 lb
25	CAV2-1500-0025	100-1500	15	425††	13.80	7.56	350.50	192.00	C	13	N/A	22 lb
30	CAV2-1500-0030	100-1500	18	440††	13.80	7.56	350.50	192.00	C	13	N/A	22 lb
35	CAV2-1500-0035	100-1500	21	455††	13.80	7.56	350.50	192.00	C	13	N/A	22 lb

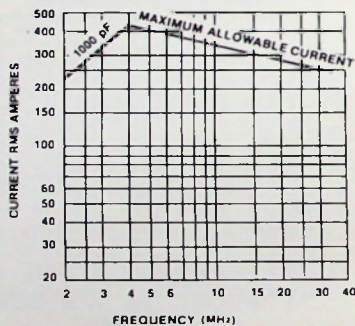
*C-Ceramic/G-Glass † Water Cooling—See Page 7 †† Forced Air Cooling—See Page 7

CAV2 1000

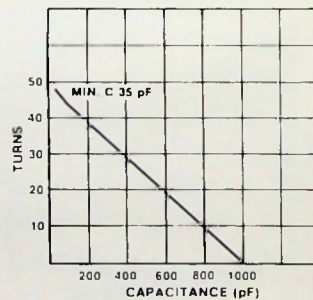


Mounting: Both ends have tapped holes.

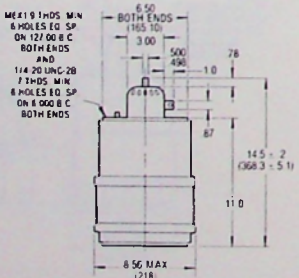
CONTINUOUS RMS AMPERES VS FREQUENCY & CAPACITANCE AT 24 KV PEAK RF VOLTAGE



CAPACITY vs TURNS Typical Data

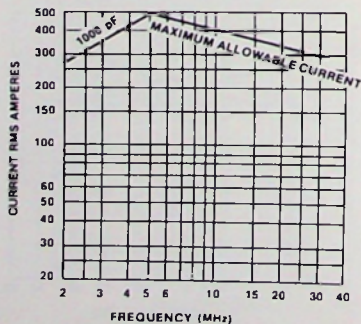


CAV3 1000

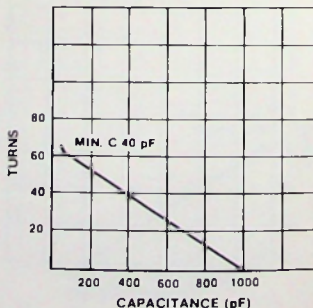


Mounting: Both ends have tapped holes.

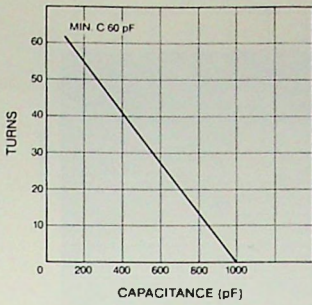
CONTINUOUS RMS AMPERES VS FREQUENCY & CAPACITANCE AT 30 KV PEAK RF VOLTAGE



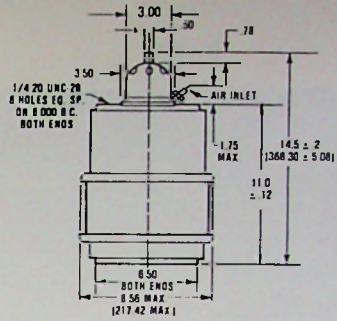
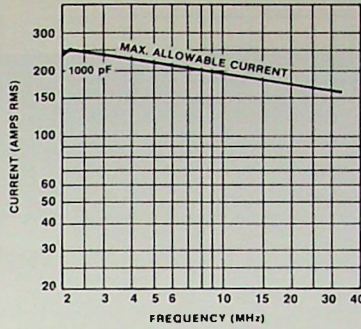
CAPACITY vs TURNS Typical Data



CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 27kV PEAK WORKING VOLTAGE)

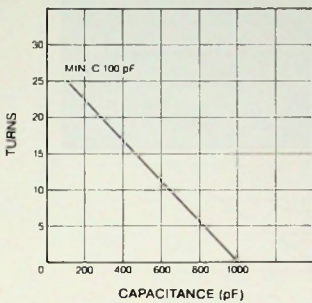


**CAV1
1000**

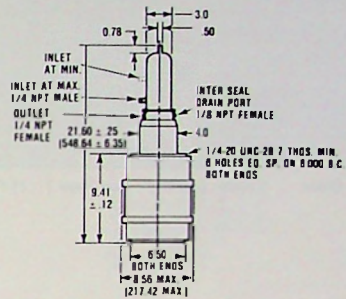
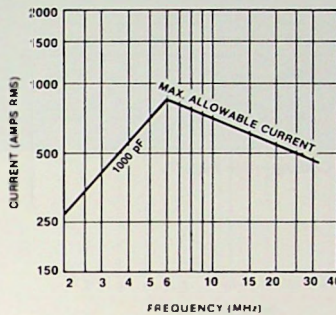


Mounting: Both ends have tapped holes.

CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 30kV PEAK WORKING VOLTAGE)

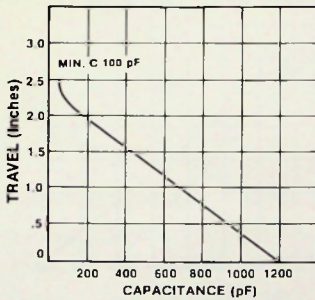


**CWV1
1000**

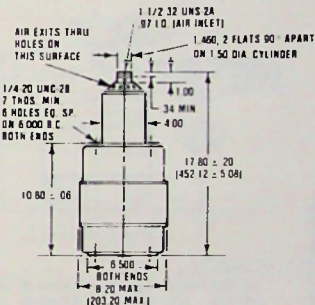
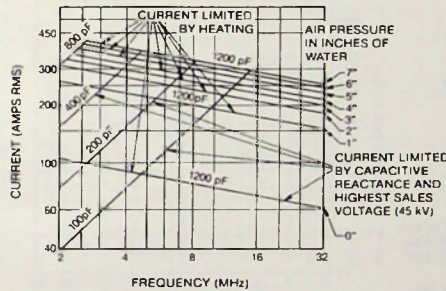


Mounting: Both ends have tapped holes.

CAPACITY vs TRAVEL
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 27 kV PEAK WORKING VOLTAGE)

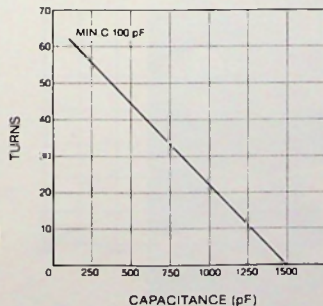


**CVHC
1200**

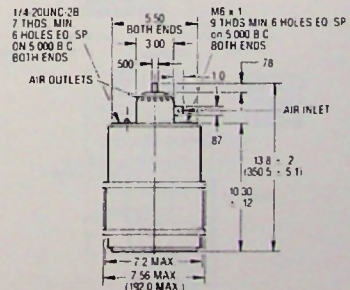
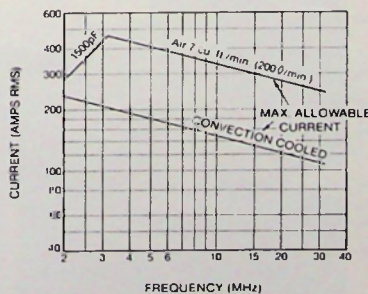


Mounting: Both ends have tapped holes.

CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 21kV PEAK WORKING VOLTAGE)



**CAV2
1500**

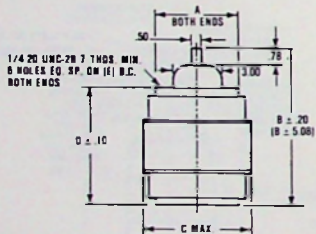


Mounting: Both ends have tapped holes.

PEAK TEST VOLTAGE (kV)	MODEL NUMBER	CAPACITY RANGE (pF)	PEAK WORKING VOLT. (kV)	AMPS (RMS) MAX.	NOMINAL DIMENSIONS				TYPE (*)	TORQUE (In. Lbs.) MAX.	DIRECT PULL (Lbs. Max.)	WEIGHT (NOM.) Lbs.
					INCHES		MILLIMETERS					
					LENGTH	DIAMETER	LENGTH	DIAMETER				
30	CVFP-1500-30S	100-1500	18	215	13.80	7.20	350.52	182.88	C	10	250	20 lb 4 oz
35	CVFP-1500-35S	100-1500	21	220	13.80	7.20	350.52	182.88	C	10	250	20 lb 4 oz
40	CVHC-1600-40S	100-1600	24	480††	17.80	8.20	452.12	208.28	C	N/A	160	35 lb 8 oz
30	CWV2-1600-0030	100-1600	18	750†	25.00	8.56	635.00	217.42	C	24	N/A	30 lb
35	CWV2-1600-0035	100-1600	21	770†	25.00	8.56	635.00	217.42	C	24	N/A	30 lb
40	CWV2-1600-0040	100-1600	24	790†	25.00	8.56	635.00	217.42	C	24	N/A	30 lb
55	CWV1-1600-0055	100-1600	33	1000†	23.00	12.60	584.20	320.04	C	N/A	375	138 lb
60	CWV1-1600-0060	100-1600	36	1000†	23.00	12.60	584.20	320.04	C	N/A	375	138 lb
25	CVFP-2000-25S	100-2000	15	205	14.50	8.20	368.30	208.28	C	12	180	29 lb 4 oz
30	CVFP-2000-30S	100-2000	18	215	14.50	8.20	368.30	208.28	C	12	180	29 lb 4 oz
35	CVFP-2000-35S	100-2000	21	220	14.50	8.20	368.30	208.28	C	12	180	29 lb 4 oz
30	CWV1-2600-0030	100-2600	18	700†	25.00	10.56	635.00	268.20	C	30	N/A	62 lb
35	CWV1-2600-0035	100-2600	21	725†	25.00	10.56	635.00	268.20	C	30	N/A	62 lb
40	CWV1-2600-0040	100-2600	24	750†	25.00	10.56	635.00	268.20	C	30	N/A	62 lb

*C-Ceramic/G-Glass † Water Cooling—See Page 7 †† Forced Air Cooling—See Page 7

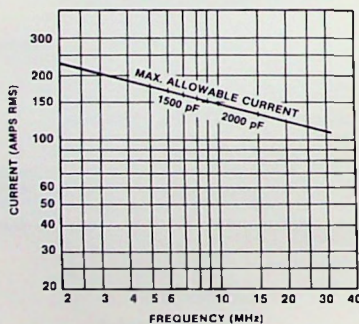
CVFP 1500, 2000



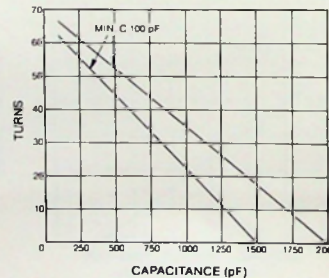
TYPE	A	B	C	D	E
CVFP 1500	5.50	13.80 (350.52)	7.20 (182.88)	10.30	5.000
CVFP 2000	8.50	14.50 (368.30)	8.20 (208.28)	11.00	8.000

Mounting: Both ends have tapped holes.

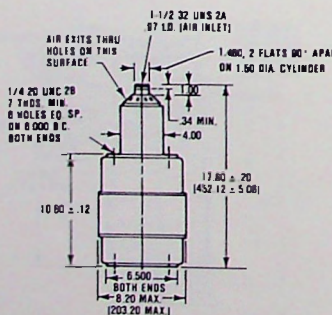
CONTINUOUS RMS AMPERES vs FREQUENCY (at 21kV PEAK WORKING VOLTAGE)



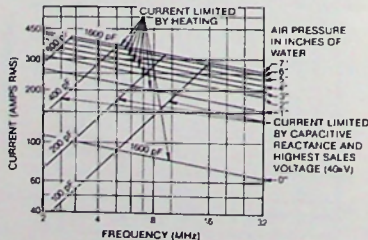
CAPACITY vs TURNS Typical Data



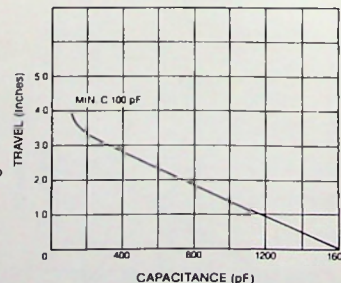
CVHC 1600



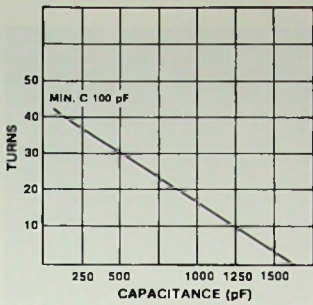
CONTINUOUS RMS AMPERES vs FREQUENCY (at 24kV PEAK WORKING VOLTAGE)



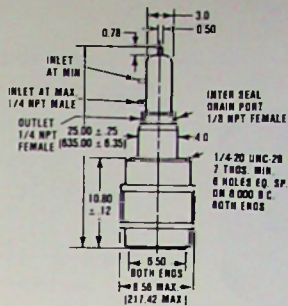
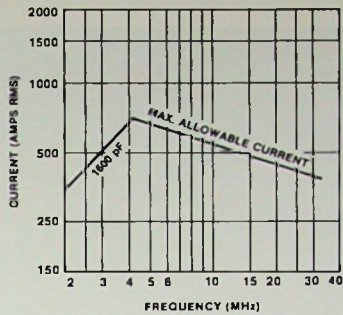
CAPACITY vs TURNS Typical Data



CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 24kV PEAK WORKING VOLTAGE)

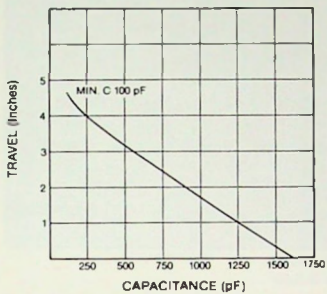


**CW2
1600**

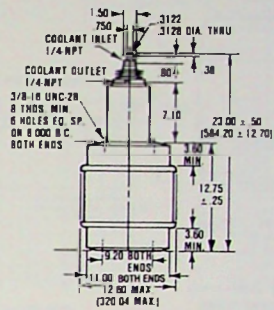
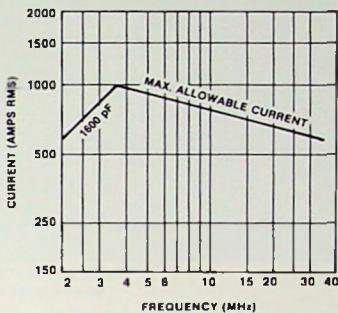


Mounting: Both ends have tapped holes.

CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 36kV PEAK WORKING VOLTAGE)

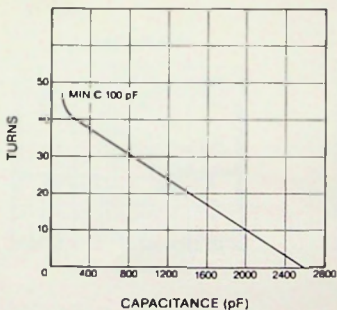


**CW1
1600**

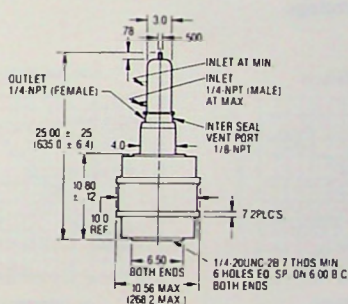
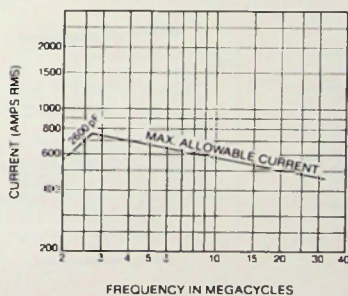


Mounting: Both ends have tapped holes.

CAPACITY vs TURNS
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 24kV PEAK WORKING VOLTAGE)



**CW1
2600**

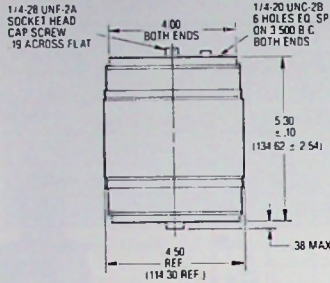


Mounting: Both ends have tapped holes.



*The people of
Jennings have
an uncommon
dedication to
the ideal of
service.*

CTV

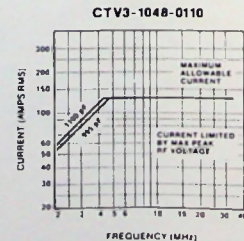
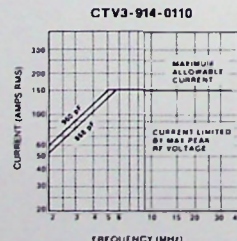
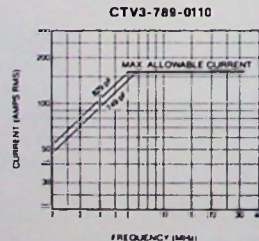
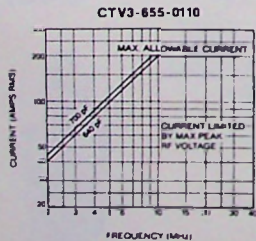
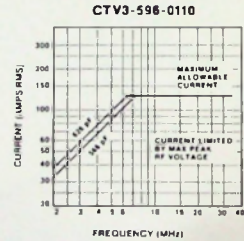
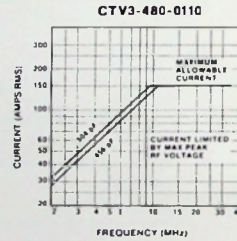
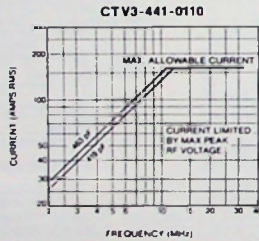
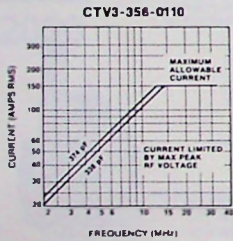


Mounting: Both ends have tapped holes.

60 Hz. Test Volt. KV, Pk	Model	Capacity Range—pF	Working Voltage KV, Pk	Maximum Current Rating* Amps—RMS
10	CTV3-356-0110	338-374	6	150*
10	CTV3-441-0110	419-463	6	125*
10	CTV3-480-0110	456-504	6	150*
10	CTV3-596-0110	566-626	6	125*
10	CTV3-655-0110	622-688	6	150*
10	CTV3-789-0110	749-829	6	125*
10	CTV3-914-0110	868-960	6	150*
10	CTV3-1048-0110	995-1100	6	125*
10	CTV3-1195-0110	1135-1255	6	150*
10	CTV3-1312-0110	1247-1377	6	125*
10	CTV3-270-0110	255-285	7	200*
10	CTV3-314-0110	294-334	7	200*
10	CTV3-410-0110	390-430	7	160*
10	CTV3-855-0110	815-895	7	200*
10	CTV-1100-0110	1045-1155	7	200*
10	CTV-1640-0110**	1560-1720	7	160*
20	CTV1-86-0120	76-96	12	125*
20	CTV1-93-0120	83-103	12	160*
20	CTV1-138-0120	128-148	12	160*
20	CTV1-149-0120	137-159	12	125*
20	CTV1-216-0120	201-231	12.5	160*
20	CTV1-234-0120	220-248	12	125*
20	CTV3-247-0120	234-260	12	150*
17	CTV3-285-0117	265-305	12	160*
20	CTV1-326-0120	306-346	12	125*

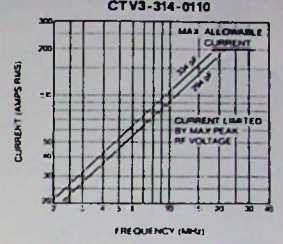
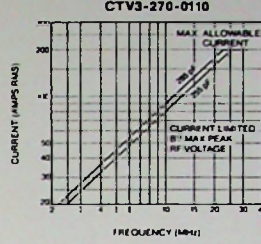
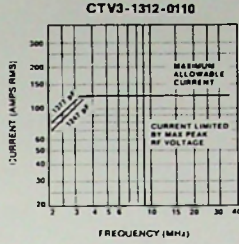
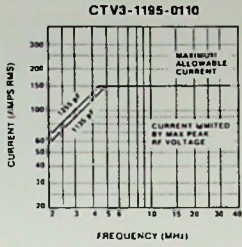
*Current with forced air cooling.
**Maximum diameter is 5.50

6 kV Peak RF Voltage

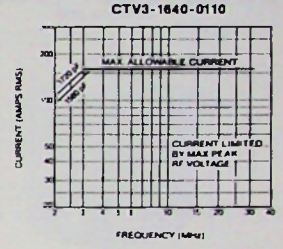
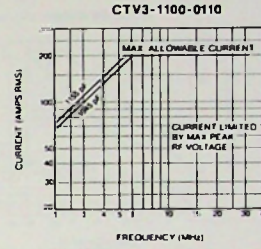
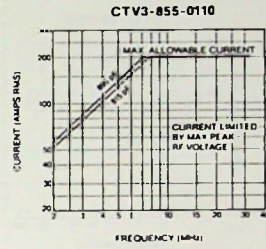
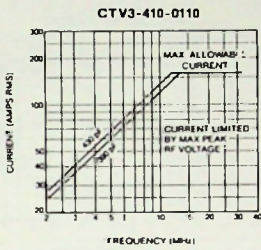


6 kV Peak RF Voltage

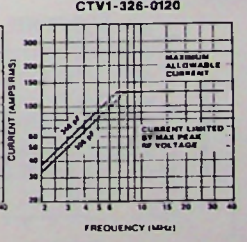
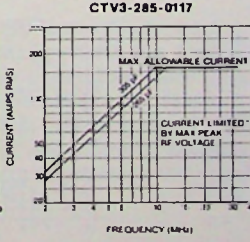
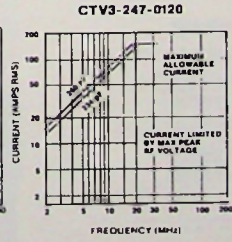
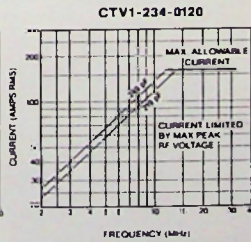
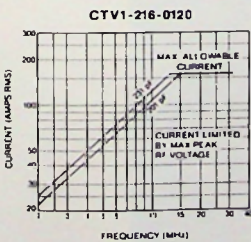
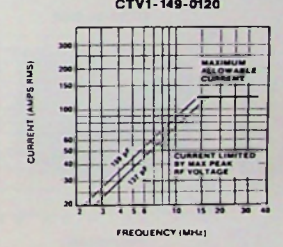
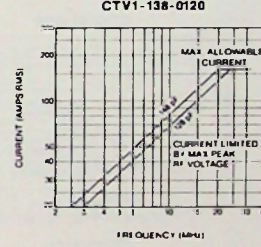
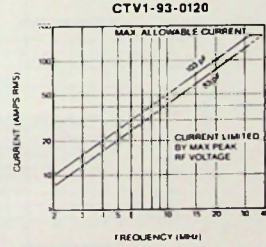
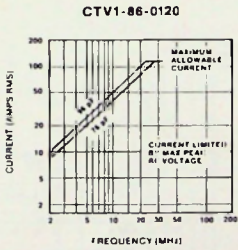
7 kV Peak RF Voltage



7 kV Peak RF Voltage



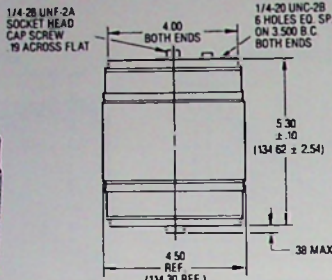
12 kV Peak RF Voltage



50kV vacuum trimmable fixed capacitors

18-175 pF

CTV



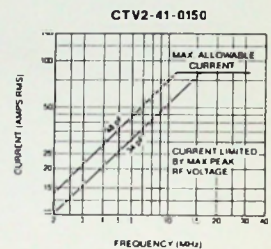
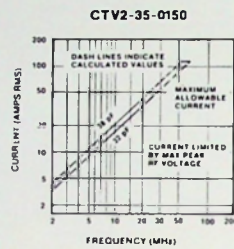
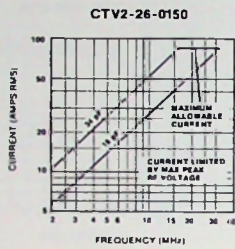
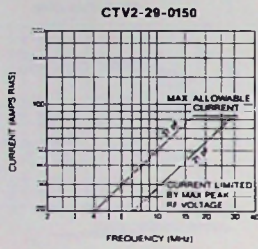
Mounting: Both ends have tapped holes.

80 Hz. Test Volt. KV, Pk	Model	Capacity Range—pF	Working Voltage KV, Pk	Maximum Current Rating* Amps—RMS
50	CTV2-26-0150	18-34	35	85
50	CTV2-29-0150	21-37	30	85
50	CTV2-35-0150	32-38	35	125*
50	CTV2-41-0150	34-48	35	85
50	CTV2-44-0150	37-51	35	85
50	CTV2-52-0150	39-65	35	85
50	CTV2-66-0150	54-78	35	85
50	CTV2-80-0150	65-95	35	85
50	CTV2-115-0150	100-130	35	85
50	CTV2-122-0150	107-137	35	85
50	CTV2-160-0150	145-175	35	160*

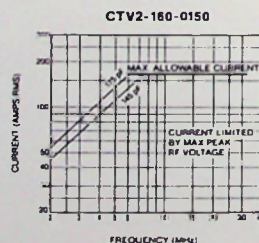
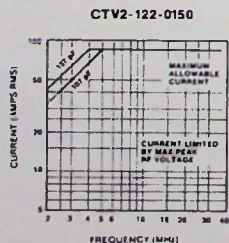
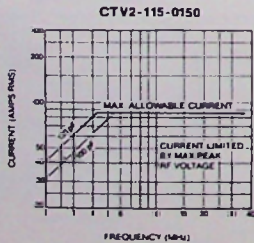
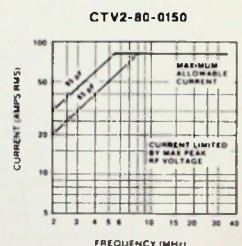
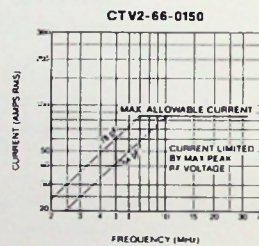
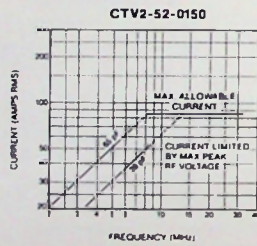
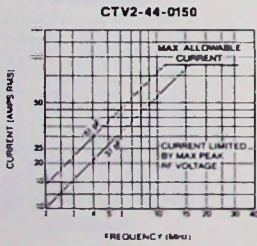
*Current with forced air cooling.

30 kV Peak RF Voltage

35 kV Peak RF Voltage



35 kV Peak RF Voltage



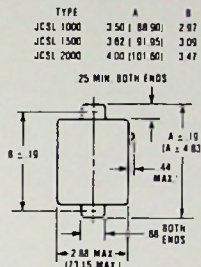
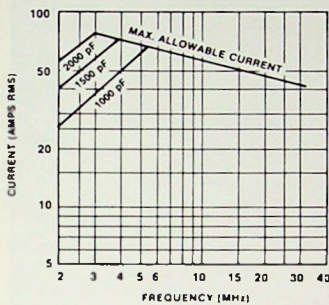
3-5kV vacuum fixed capacitors

1000-5000 pF

PEAK TEST VOLTAGE (kV)	MODEL NUMBER	CAPACITY (pF) ±5%	PEAK WORKING VOLT. (kV)	AMPS (RMS) MAX.	NOMINAL DIMENSIONS				TYPE (*)	WEIGHT (NOM.) Lbs.
					INCHES		MILLIMETERS			
					LENGTH	DIAMETER	LENGTH	DIAMETER		
3	JCSL-1000-3S	1000	1.8	60	3.50	2.88	88.90	73.15	G	13 oz
5	JCSL-1000-5S	1000	3	65	3.50	2.88	88.90	73.15	G	13 oz
3	JCSL-1500-3S	1500	1.8	65	3.62	2.88	91.95	73.15	G	14 oz
5	JCSL-1500-5S	1500	3	70	3.62	2.88	91.95	73.15	G	14 oz
3	JCSL-2000-3S	2000	1.8	70	4.00	2.88	101.80	73.15	G	1 lb
5	JCSL-2000-5S	2000	3	75	4.00	2.88	101.80	73.15	G	1 lb
3	JSLF-5000-3S	5000	1.8	110	2.88	4.13	73.15	104.90	G	1 lb 2 oz
5	JSLF-5000-5S	5000	3	120	2.88	4.13	73.15	104.90	G	1 lb 2 oz

*C-Ceramic/G-Glass

CONTINUOUS RMS AMPERES vs FREQUENCY
(at 3kV PEAK WORKING VOLTAGE)

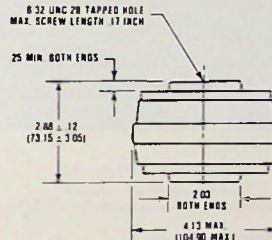
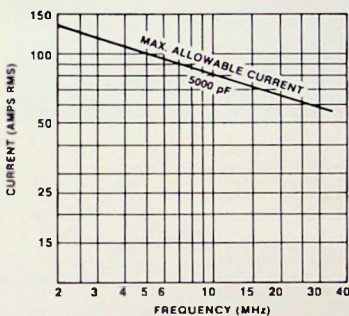


Mounting: Use Jennings No. 112304 Fuse clip.
Or flange FMOB (pg. 62).

JCSL 1000, 1500, 2000



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 3kV PEAK WORKING VOLTAGE)



Mounting: Use flange FM2S on both ends (pg. 62).

JSLF 5000

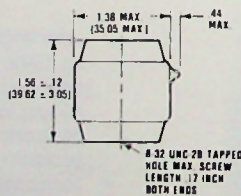


Jennings first introduced the fixed capacitor in 1942. By 1948, the first practical variable vacuum capacitors were introduced by Jennings. We offer our customers over 40 years of research, development and field-proven manufacturing expertise in the manufacture of Vacuum and Gas Capacitors.

PEAK TEST VOLTAGE (kV)	MODEL NUMBER	CAPACITY (pF) ±5%	PEAK WORKING VOLT. (kV)	AMPS (RMS) MAX.	NOMINAL DIMENSIONS				TYPE (*)	WEIGHT (NOM.) Lbs.
					INCHES		MILLIMETERS			
					LENGTH	DIAMETER	LENGTH	DIAMETER		
7.5	JCSF-25-7.5S	25†	4.5	14	1.56	1.38	39.62	35.05	G	3 oz
10	JCSF-25-10S	25†	6	16	1.56	1.38	39.62	35.05	G	3 oz
15	JCSF-25-15S	25†	9	18	1.56	1.38	39.62	35.05	G	3 oz
7.5	JCSF-40-7.5S	40†	4.5	18	1.56	1.38	39.62	35.05	G	3 oz
10	JCSF-40-10S	40†	6	20	1.56	1.38	39.62	35.05	G	3 oz
15	JCSF-40-15S	40†	9	22	1.56	1.38	39.62	35.05	G	3 oz
7.5	JCSF-50-7.5S	50†	4.5	18	1.56	1.38	39.62	35.05	G	3 oz
10	JCSF-50-10S	50†	6	20	1.56	1.38	39.62	35.05	G	3 oz
15	JCSF-50-15S	50†	9	22	1.56	1.38	39.62	35.05	G	3 oz
7.5	JCSF-80-7.5S	80	4.5	30	1.69	1.38	42.93	35.05	G	3 oz
10	JCSF-80-10S	80	6	30	1.69	1.38	42.93	35.05	G	3 oz
15	JCSF-80-15S	80	9	35	1.69	1.38	42.93	35.05	G	3 oz
7.5	JCSF-120-7.5S	120	4.5	30	1.62	1.69	41.15	42.93	G	3 oz
10	JCSF-120-10S	120	6	35	1.62	1.69	41.15	42.93	G	3 oz
15	JCSF-120-15S	120	9	40	1.62	1.69	41.15	42.93	G	3 oz
7.5	JCSF-150-7.5S	150	4.5	35	1.69	1.69	42.93	42.93	G	3 oz
10	JCSF-150-10S	150	6	40	1.69	1.69	42.93	42.93	G	3 oz
15	JCSF-150-15S	150	9	40	1.69	1.69	42.93	42.93	G	3 oz
20	CFED-150-20S	150	12	120	3.47	2.44	88.14	61.96	C	1 lb 14 oz
7.5	JCS-250-7.5S	250	4.5	60	3.75	2.63	95.25	66.80	G	10 oz
10	JCS-250-10S	250	6	65	3.75	2.63	95.25	66.80	G	10 oz
15	JCS-250-15S	250	9	70	3.75	2.63	95.25	66.80	G	10 oz
20	CFED-300-20S	300	12	120	3.62	3.44	91.95	87.38	C	4 lb
7.5	JCS-400-7.5S	400	4.5	70	3.75	3.07	95.25	77.98	G	14 oz
10	JCS-400-10S	400	6	75	3.75	3.07	95.25	77.98	G	14 oz
15	JCS-400-15S	400	9	80	3.75	3.07	95.25	77.98	G	14 oz

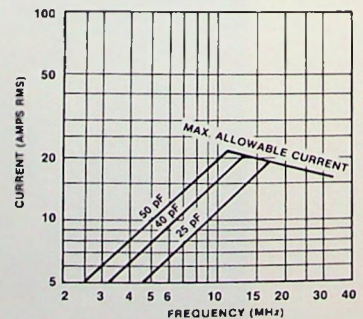
*C-Ceramic/G-Glass † ±10%

JCSF 25, 40, 50

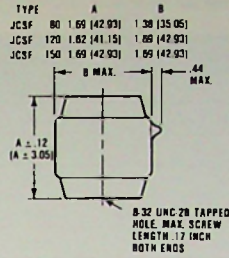
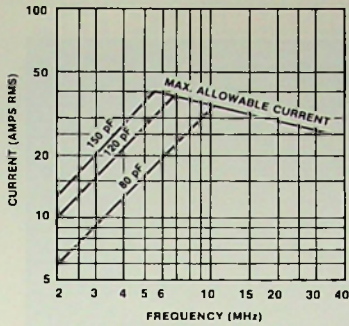


Mounting: Both ends have tapped holes.

CONTINUOUS RMS AMPERES vs FREQUENCY
(at 9kV PEAK WORKING VOLTAGE)



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 9kV PEAK WORKING VOLTAGE)

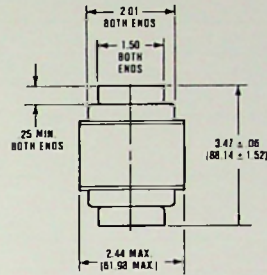
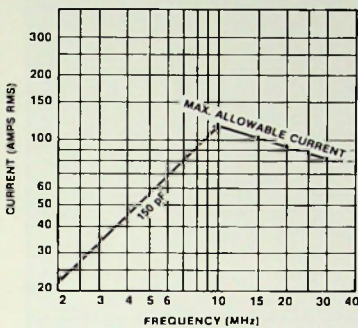


JCSF
80, 120, 150



Mounting: Both ends have tapped holes.

CONTINUOUS RMS AMPERES vs FREQUENCY
(at 12kV PEAK WORKING VOLTAGE)

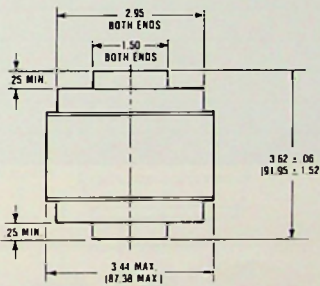
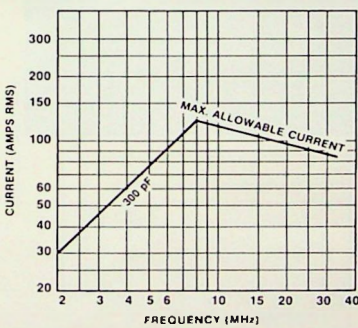


CFED
150



Mounting: Ferrule mount both ends.
Use FMH flange (pg. 62).

CONTINUOUS RMS AMPERES vs FREQUENCY
(at 12kV PEAK WORKING VOLTAGE)

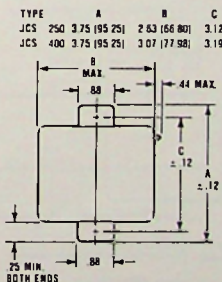
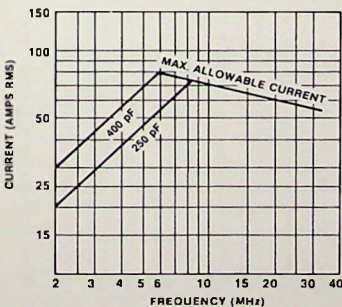


CFED
300



Mounting: Ferrule mount both ends.
Use FMH flange (pg. 62).

CONTINUOUS RMS AMPERES vs FREQUENCY
(at 9kV PEAK WORKING VOLTAGE)



JCS
250, 400

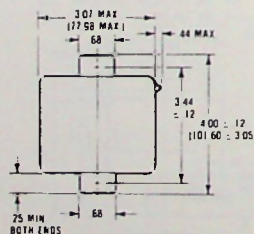


Mounting: Use flange FMOB on both ends (pg. 62).

PEAK TEST VOLTAGE (kV)	MODEL NUMBER	CAPACITY (pF) ±5%	PEAK WORKING VOLT. (kV)	AMPS (RMS) MAX.	NOMINAL DIMENSIONS				TYPE (*)	WEIGHT (NOM.) Lbs.
					INCHES		MILLIMETERS			
					LENGTH	DIAMETER	LENGTH	DIAMETER		
7.5	JCS-500-7.5S	500	4.5	75	4.00	3.07	101.80	77.98	G	14 oz
10	JCS-500-10S	500	6	80	4.00	3.07	101.80	77.98	G	14 oz
15	JCS-500-15S	500	9	90	4.00	3.07	101.80	77.98	G	14 oz
10	CFED-500-10S	500	6	140	3.81	4.56	96.77	115.82	C	4 lb 2 oz
15	CFED-500-15S	500	9	145	3.81	4.56	96.77	115.82	C	4 lb 2 oz
20	CFED-500-20S	500	12	150	3.81	4.56	96.77	115.82	C	4 lb 2 oz
10	MC-500-10S	500	6	135	8.38	5.00	212.85	127.00	G	2 lb 12 oz
15	MC-500-15S	500	9	140	8.38	5.00	212.85	127.00	G	2 lb 12 oz
20	MC-500-20S	500	12	145	8.38	5.00	212.85	127.00	G	2 lb 12 oz
10	MC1-500-10S	500	6	95	4.06	2.00	103.12	50.80	G	2 lb 4 oz
15	MC1-500-15S	500	9	100	4.06	2.00	103.12	50.80	G	2 lb 4 oz
10	MC1-750-10S	750	6	100	4.06	4.13	103.12	104.90	G	2 lb 10 oz
15	MC1-750-15S	750	9	110	4.06	4.13	103.12	104.90	G	2 lb 10 oz
10	CFED-750-10S	750	6	145	3.81	4.56	96.77	115.82	C	5 lb 3 oz
15	CFED-750-15S	750	9	150	3.81	4.56	96.77	115.82	C	5 lb 3 oz
20	CFED-750-20S	750	12	155	3.81	4.56	96.77	115.82	C	5 lb 3 oz
10	CFED-1000-10S	1000	6	150	3.81	4.56	96.77	115.82	C	5 lb 13 oz
15	CFED-1000-15S	1000	9	155	3.81	4.56	96.77	115.82	C	5 lb 13 oz
20	CFED-1000-20S	1000	12	160	3.81	4.56	96.77	115.82	C	5 lb 13 oz
7.5	CFDS-1000-0007	1000	4.5	85	4.62	3.63	117.35	92.20	C	2 lb 10 oz
10	CFDS-1000-0010	1000	6	90	4.62	3.63	117.35	92.20	C	2 lb 10 oz
12	CFDS-1000-0012	1000	7.2	95	4.62	3.63	117.35	92.20	C	2 lb 10 oz
10	MC-1000-10S	1000	6	145	8.38	5.00	212.85	127.00	G	3 lb 4 oz
15	MC-1000-15S	1000	9	150	8.38	5.00	212.85	127.00	G	3 lb 4 oz
20	MC-1000-20S	1000	12	155	8.38	5.00	212.85	127.00	G	3 lb 4 oz
10	MC1-1000-10S	1000	6	110	4.06	4.13	103.12	104.90	G	2 lb 15 oz
15	MC1-1000-15S	1000	9	120	4.06	4.13	103.12	104.90	G	2 lb 15 oz

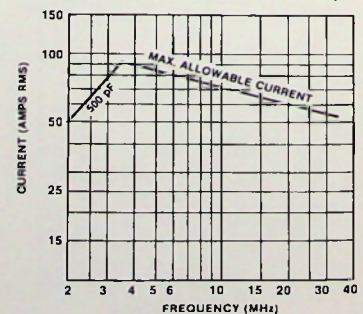
*C-Ceramic/G-Glass

JCS 500

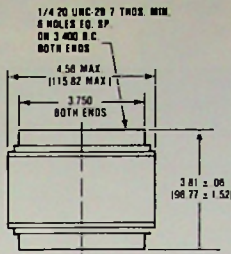
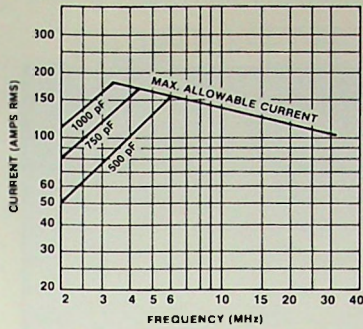


Mounting: Use flange FMOB on both ends (pg. 62).

CONTINUOUS RMS AMPERES vs FREQUENCY (at 9kV PEAK WORKING VOLTAGE)



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 12kV PEAK WORKING VOLTAGE)

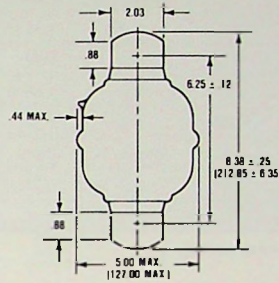
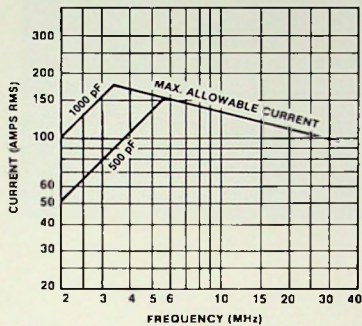


CFED
500, 750, 1000



Mounting: Both ends have tapped holes.

CONTINUOUS RMS AMPERES vs FREQUENCY
(at 12kV PEAK WORKING VOLTAGE)

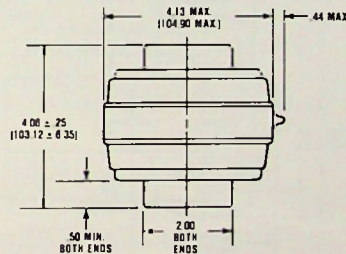
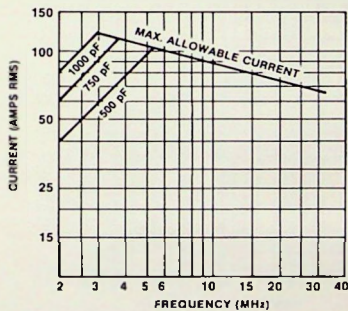


MC
500, 1000



Mounting: Use flange FM2D on both ends (pg. 62).

CONTINUOUS RMS AMPERES vs FREQUENCY
(at 9kV PEAK WORKING VOLTAGE)

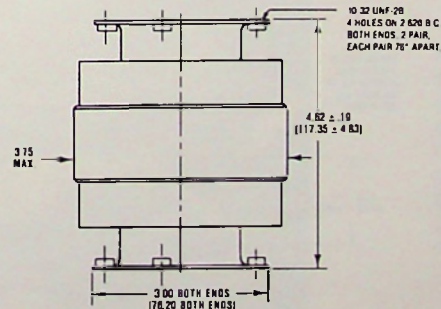
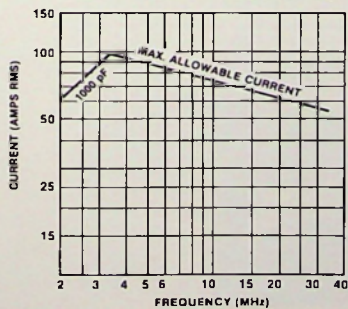


MC1
500, 750, 1000



Mounting: Use flange FM2B on both ends (pg. 62).

CONTINUOUS RMS AMPERES vs FREQUENCY
(at 7.2kV PEAK WORKING VOLTAGE)



CFDS
1000

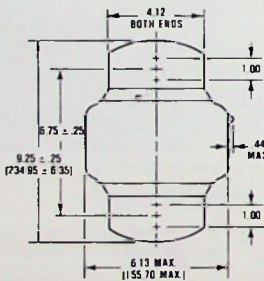


Mounting: Soldered-on flanges.

PEAK TEST VOLTAGE (kV)	MODEL NUMBER	CAPACITY (pF) ±5%	PEAK WORKING VOLT. (kV)	AMPS (RMS) MAX.	NOMINAL DIMENSIONS				TYPE (')	WEIGHT (NOM.) Lbs.
					INCHES		MILLIMETERS			
					LENGTH	DIAMETER	LENGTH	DIAMETER		
10	MMC-1500-10S	1500	6	160	9.25	6.13	234.95	155.70	G	6 lb
15	MMC-1500-15S	1500	9	180	9.25	6.13	234.95	155.70	G	6 lb
7.5	CFDP-1500-7.5S	1500	4.5	150	3.30	5.62	83.82	142.75	C	5 lb 12 oz
10	CFDP-1500-10S	1500	6	170	3.30	5.62	83.82	142.75	C	5 lb 12 oz
15	CFDP-1500-15S	1500	9	190	3.30	5.62	83.82	142.75	C	5 lb 12 oz
10	MMC-2000-10S	2000	6	180	9.25	6.13	234.95	155.70	G	6 lb 11 oz
15	MMC-2000-15S	2000	9	200	9.25	6.13	234.95	155.70	G	6 lb 11 oz
7.5	CFDP-2000-7.5S	2000	4.5	160	3.30	5.62	83.82	142.75	C	5 lb 12 oz
10	CFDP-2000-10S	2000	6	180	3.30	5.62	83.82	142.75	C	5 lb 12 oz
15	CFDP-2000-15S	2000	9	200	3.30	5.62	83.82	142.75	C	5 lb 12 oz
10	CFEP-2000-10S	2000	6	180	4.35	5.92	110.49	150.37	C	11 lb 2 oz
15	CFEP-2000-15S	2000	9	200	4.35	5.92	110.49	150.37	C	11 lb 2 oz
20	CFEP-2000-20S	2000	12	225	4.35	5.92	110.49	150.37	C	11 lb 2 oz
10	MMC1-2000-10S	2000	6	180	4.94	6.07	125.48	154.18	G	7 lb 2 oz
15	MMC1-2000-15S	2000	9	200	4.94	6.07	125.48	154.18	G	7 lb 2 oz
20	CFFM-2500-0020**	2500	12	350	5.78	8.20	146.81	208.28	C	23 lb 8 oz

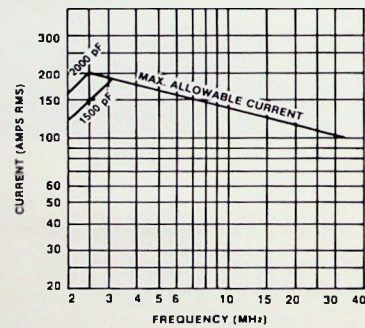
*C-Ceramic/G-Glass **Available with metric thread mounting.

MMC 1500, 2000

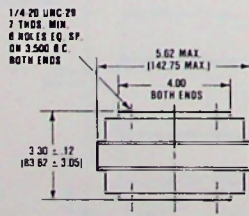


Mounting: Use flange FM4 on both ends (pg. 62).

CONTINUOUS RMS AMPERES vs FREQUENCY (at 9kV PEAK WORKING VOLTAGE)

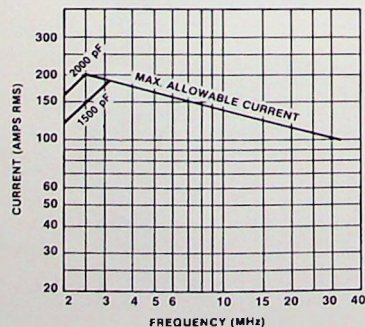


CFDP 1500, 2000



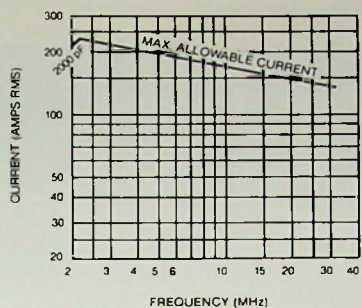
Mounting: Both ends have tapped holes.

CONTINUOUS RMS AMPERES vs FREQUENCY (at 9kV PEAK WORKING VOLTAGE)

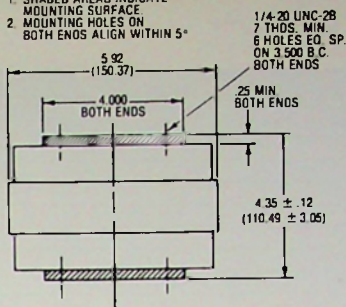


CFEP 2000

CONTINUOUS RMS AMPERES vs FREQUENCY
(at 12kV PEAK WORKING VOLTAGE)



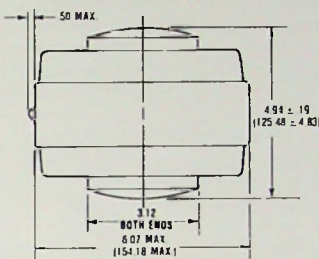
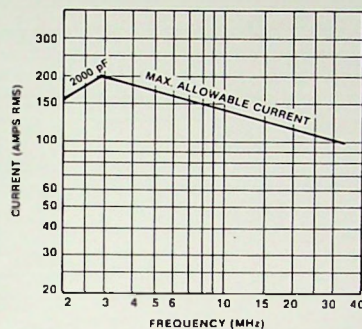
- NOTES:
1. SHADED AREAS INDICATE MOUNTING SURFACE
2. MOUNTING HOLES ON BOTH ENDS ALIGN WITHIN 5°



Mounting: Both ends have tapped holes.

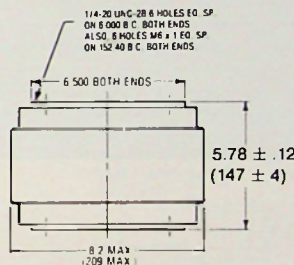
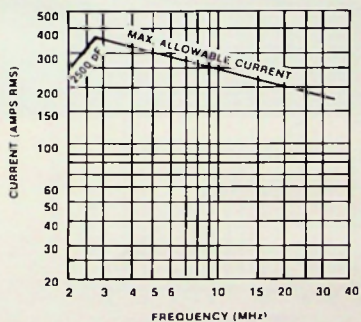
MMC1 2000

CONTINUOUS RMS AMPERES vs FREQUENCY
(at 9kV PEAK WORKING VOLTAGE)



Mounting: Use flange FM3C on both ends (pg. 62).

CONTINUOUS RMS AMPERES vs FREQUENCY
(at 12kV PEAK WORKING VOLTAGE)



Mounting: Both ends have tapped holes.

**Available with metric thread mounting.

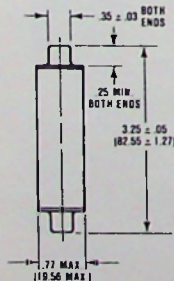


Many of our main assembly operations include in-process electrical testing to prevent units from going too far in the assembly process before correction can be made.

PEAK TEST VOLTAGE (kV)	MODEL NUMBER	CAPACITY (pF) ± 10%	PEAK WORKING VOLT. (kV)	AMPS (RMS) MAX.	NOMINAL DIMENSIONS				TYPE (*)	WEIGHT (NOM.) Lbs.
					INCHES		MILLIMETERS			
					LENGTH	DIAMETER	LENGTH	DIAMETER		
25	CY-1-25S	1***	15	7	3.25	.77	82.55	19.56	C	2 oz
30	CY-1-30S	1***	18	8	3.25	.77	82.55	19.56	C	2 oz
25	CY-2-25S	2***	15	8	3.25	.77	82.55	19.56	C	2 oz
30	CY-2-30S	2***	18	9	3.25	.77	82.55	19.56	C	2 oz
25	CY-3-25S	3***	15	9	3.25	.77	82.55	19.56	C	2 oz
30	CY-3-30S	3***	18	10	3.25	.77	82.55	19.56	C	2 oz
25	CY-5-25S	5	15	11	3.25	.77	82.55	19.56	C	2 oz
30	CY-5-30S	5	18	12	3.25	.77	82.55	19.56	C	2 oz
30	CLF1-6-0030	6	20	45	6.5	2.3	165.1	58.4	C	1 lb 6 oz
35	CLF1-6-0035	6	25	47	6.5	2.3	165.1	58.4	C	1 lb 6 oz
30	CLF1-12-0030	12	20	50	6.5	2.3	165.1	58.4	C	1 lb 6 oz
35	CLF1-12-0035	12	25	52	6.5	2.3	165.1	58.4	C	1 lb 6 oz
45	CFHD-12-45S	12	27	90	5.18	2.44	131.57	61.96	C	1 lb 3 oz
50	CFHD-12-50S	12	30	95	5.18	2.44	131.57	61.96	C	1 lb 3 oz
55	CFHD-12-55S	12	33	95	5.18	2.44	131.57	61.96	C	1 lb 3 oz
60	CFHD-12-60S	12	36	95	5.18	2.44	131.57	61.96	C	1 lb 3 oz
45	CFHD-25-45S	25	27	100	5.18	2.44	131.57	61.96	C	1 lb 4 oz
50	CFHD-25-50S	25	30	110	5.18	2.44	131.57	61.96	C	1 lb 4 oz
55	CFHD-25-55S	25	33	115	5.18	2.44	131.57	61.96	C	1 lb 4 oz
60	CFHD-25-60S	25	36	120	5.18	2.44	131.57	61.96	C	1 lb 4 oz
30	CLF1-25-0030	25	20	65	6.5	2.3	165.1	58.4	C	1 lb 6 oz
35	CLF1-25-0035	25	25	67	6.5	2.3	165.1	58.4	C	1 lb 6 oz
30	CLF1-50-0030	50	20	75	6.5	2.3	165.1	58.4	C	1 lb 6 oz
35	CLF1-50-0035	50	25	77	6.5	2.3	165.1	58.4	C	1 lb 6 oz
45	CFHD-50-45S	50	27	125	5.18	2.44	131.57	61.96	C	1 lb 5 oz
50	CFHD-50-50S	50	30	130	5.18	2.44	131.57	61.96	C	1 lb 5 oz
55	CFHD-50-55S	50	33	135	5.18	2.44	131.57	61.96	C	1 lb 5 oz
60	CFHD-50-60S	50	36	140	5.18	2.44	131.57	61.96	C	1 lb 5 oz
35	JC3-50-35S	50	21	160†	8.25	3.50	209.55	88.90	G	1 lb 11 oz
45	JC3-50-45S	50	27	165†	8.25	3.50	209.55	88.90	G	1 lb 11 oz
55	JC3-50-55S	50	33	175†	8.25	3.50	209.55	88.90	G	1 lb 11 oz
60	JC3-50-60S	50	36	180†	8.25	3.50	209.55	88.90	G	1 lb 11 oz
30	CLF1-75-0030	75**	20	80	6.5	2.3	165.1	58.4	C	1 lb 6 oz
35	CLF1-75-0035	75**	25	82	6.5	2.3	165.1	58.4	C	1 lb 6 oz
30	CLF1-100-0030	100**	20	85	6.5	2.3	165.1	58.4	C	1 lb 6 oz
35	CLF1-100-0035	100**	25	87	6.5	2.3	165.1	58.4	C	1 lb 6 oz

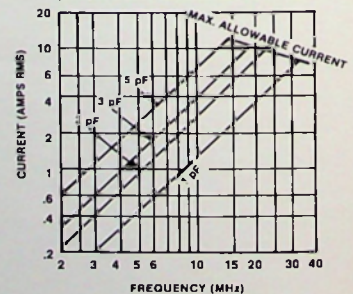
*C-Ceramic/G-Glass / †Forced Air Cooling — See Page 7 / **± 5.0% / ***± 0.15pF

CY 1, 2, 3, 5

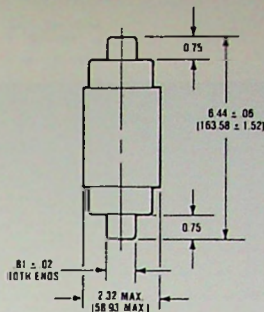
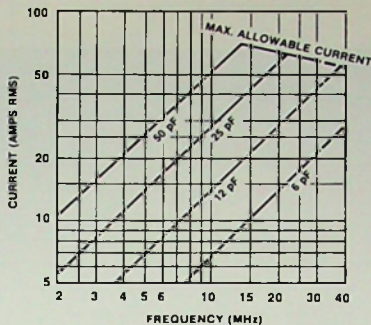


Mounting: Use Jennings No. 104277 Fuse clip.
Both ends (pg. 62).

CONTINUOUS RMS AMPERES vs FREQUENCY
(at 18kV PEAK WORKING VOLTAGE)



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 25kV PEAK WORKING VOLTAGE)

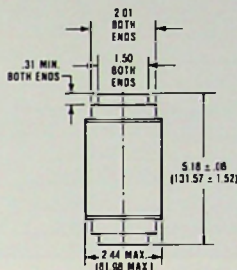
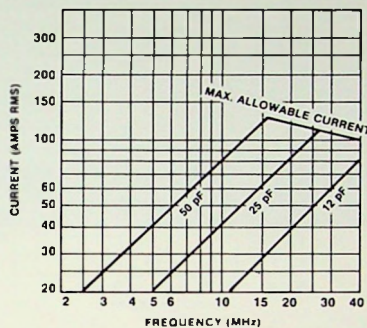


Mounting: Use flange FMOA on both ends (pg. 62).

CLF1
6, 12, 25, 50



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 36kV PEAK WORKING VOLTAGE)

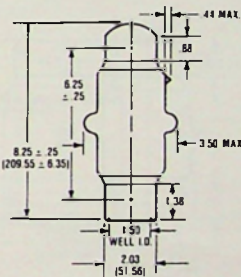
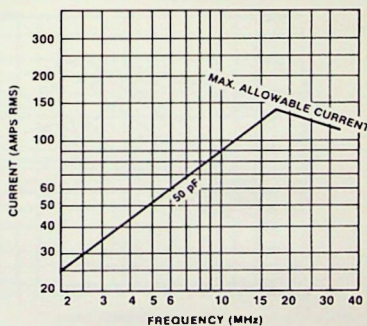


Mounting: Ferrule mount both ends.
Use FM1H flange (pg. 62).

CFHD
12, 25, 50



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 36kV PEAK WORKING VOLTAGE)

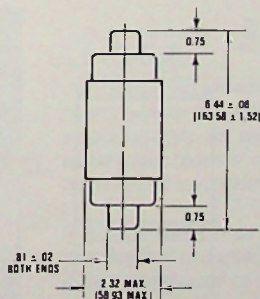
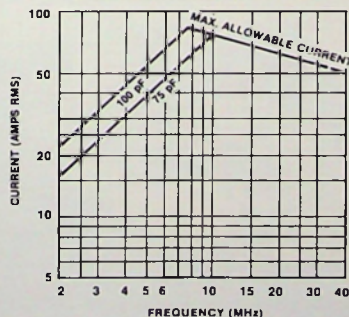


Mounting: Use flange FM2D on both ends (pg. 62).

JC3
50



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 25kV PEAK WORKING VOLTAGE)



Mounting: Use flange FMOA on both ends (pg. 62).

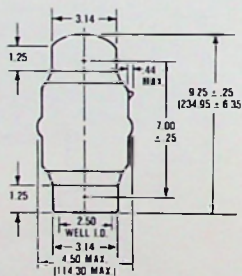
CLF1
75, 100



PEAK TEST VOLTAGE (kV)	MODEL NUMBER	CAPACITY (pF) ±5%	PEAK WORKING VOLT. (kV)	AMPS (RMS) MAX.	NOMINAL DIMENSIONS				TYPE (")	WEIGHT (NOM.) Lbs.
					INCHES		MILLIMETERS			
					LENGTH	DIAMETER	LENGTH	DIAMETER		
35	JC4-100-35S	100	21	280†	9.25	4.50	234.95	114.30	G	3 lb 2 oz
45	JC4-100-45S	100	27	280†	9.25	4.50	234.95	114.30	G	3 lb 2 oz
55	JC4-100-55S	100	33	280†	9.25	4.50	234.95	114.30	G	3 lb 2 oz
60	JC4-100-60S	100	36	280†	9.25	4.50	234.95	114.30	G	3 lb 2 oz
45	CFHD-100-45S	100	27	130	5.12	3.44	130.05	87.38	C	3 lb
50	CFHD-100-50S	100	30	135	5.12	3.44	130.05	87.38	C	3 lb
55	CFHD-100-55S	100	33	140	5.12	3.44	130.05	87.38	C	3 lb
60	CFHD-100-60S	100	36	145	5.12	3.44	130.05	87.38	C	3 lb
35	JC4-125-35S	125	21	280†	9.25	4.50	234.95	114.30	G	3 lb 5 oz
45	JC4-125-45S	125	27	280†	9.25	4.50	234.95	114.30	G	3 lb 5 oz
55	JC4-125-55S	125	33	280†	9.25	4.50	234.95	114.30	G	3 lb 5 oz
60	JC4-125-60S	125	36	280†	9.25	4.50	234.95	114.30	G	3 lb 5 oz
25	CFED-150-25S	150	15	130	3.47	2.44	88.14	61.96	C	1 lb 14 oz
30	CFED-150-30S	150	18	135	3.47	2.44	88.14	61.96	C	1 lb 14 oz
30	CLF1-150-0030	150	20	90	6.5	2.63	165.1	66.8	C	1 lb 14 oz
30	CLF1-200-0030	200	20	95	6.5	2.63	165.1	66.8	C	1 lb 15 oz
45	CFHD-200-45S	200	27	215	5.38	4.56	136.65	115.82	C	5 lb 2 oz
50	CFHD-200-50S	200	30	220	5.38	4.56	136.65	115.82	C	5 lb 2 oz
55	CFHD-200-55S	200	33	225	5.38	4.56	136.65	115.82	C	5 lb 2 oz
60	CFHD-200-60S	200	36	230	5.38	4.56	136.65	115.82	C	5 lb 2 oz
30	CLF1-250-0030	250	20	100	6.5	2.63	165.1	66.8	C	2 lbs

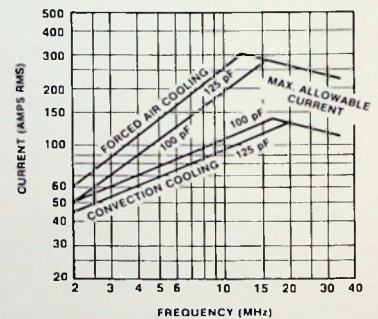
*C-Ceramic/G-Glass / †Forced Air Cooling—See Page 7

JC4 100, 125

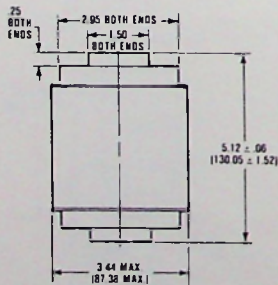


Mounting: Use flange FM3B on both ends (pg. 62).

CONTINUOUS RMS AMPERES vs FREQUENCY
(at 36kV PEAK WORKING VOLTAGE)

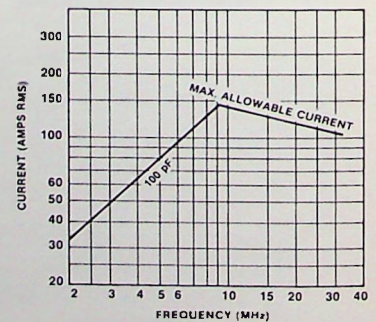


CFHD 100

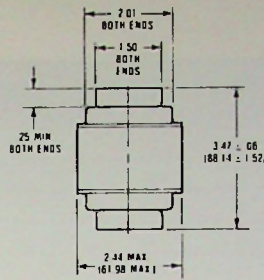
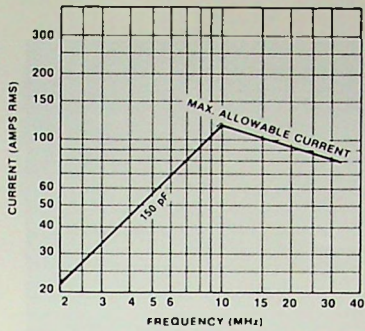


Mounting: Ferrule mount both ends.
Use FMIH flange (pg. 62).

CONTINUOUS RMS AMPERES vs FREQUENCY
(at 36kV PEAK WORKING VOLTAGE)



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 12kV PEAK WORKING VOLTAGE)

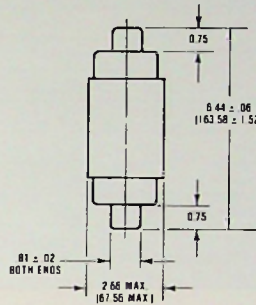
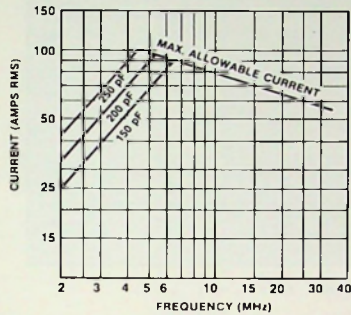


Mounting: Ferrule mount both ends.
Use FMH flange (pg. 62).

**CFED
150**



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 20kV PEAK WORKING VOLTAGE)

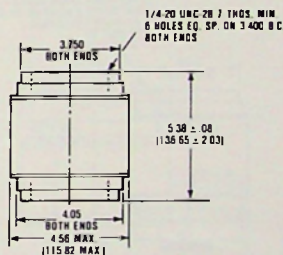
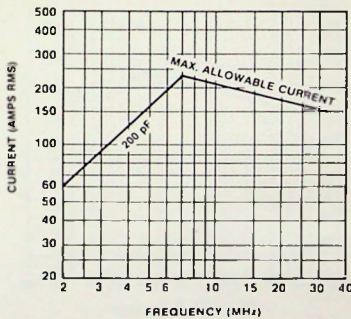


Mounting: Use flange FMOA on both ends (pg. 62).

**CLF1
150, 200, 250**



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 36kV PEAK WORKING VOLTAGE)



Mounting: Both ends have tapped holes.

**CFHD
200**



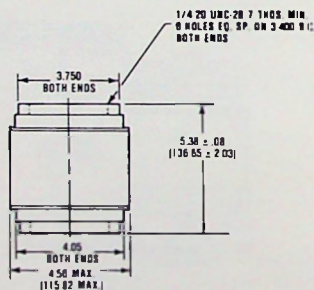
Jennings applications personnel have accumulated many years of experience in dealing with all types of applications, as well as a variety of dielectrics. The extensive results of this experience are available to both OEM and end user customers.

If a new design or modification of a standard unit is necessary, our quick-response laboratory can provide it in a minimum of time.

PEAK TEST VOLTAGE (kV)	MODEL NUMBER	CAPACITY (pF) ±5%	PEAK WORKING VOLT. (kV)	AMPS (RMS) MAX.	NOMINAL DIMENSIONS				TYPE (*)	WEIGHT (NOM.) Lbs.
					INCHES		MILLIMETERS			
					LENGTH	DIAMETER	LENGTH	DIAMETER		
45	CFHD-300-45S	300	27	225	5.38	4.56	136.65	115.82	C	5 lb 2 oz
50	CFHD-300-50S	300	30	230	5.38	4.56	136.65	115.82	C	5 lb 2 oz
55	CFHD-300-55S	300	33	235	5.38	4.56	136.65	115.82	C	5 lb 2 oz
60	CFHD-300-60S	300	36	240	5.38	4.56	136.65	115.82	C	5 lb 2 oz
25	CFED-300-25S	300	15	130	3.62	3.44	91.95	87.38	C	4 lb
30	CFED-300-30S	300	18	140	3.62	3.44	91.95	87.38	C	4 lb
35	MMHC-450-35S	450	21	200	9.25	6.13	234.95	114.30	G	5 lb 11 oz
45	MMHC-450-45S	450	27	205	9.25	6.13	234.95	114.30	G	5 lb 11 oz
55	MMHC-450-55S	450	33	210	9.25	6.13	234.95	114.30	G	5 lb 11 oz
45	CFHP-450-45S	450	27	260	5.50	5.62	139.70	142.75	C	7 lb 5 oz
50	CFHP-450-50S	450	30	280	5.50	5.62	139.70	142.75	C	7 lb 5 oz
55	CFHP-450-55S	450	33	300	5.50	5.62	139.70	142.75	C	7 lb 5 oz
25	CFED-500-25S	500	15	160	3.81	4.56	96.77	115.82	C	4 lb 2 oz
25	MLC-500-25S	500	15	155	9.25	4.50	234.95	114.30	G	3 lb
30	MLC-500-30S	500	18	160	9.25	4.50	234.95	114.30	G	3 lb
25	CFED-750-25S	750	15	170	3.81	4.56	96.77	115.82	C	5 lb 3 oz
25	MLC-750-25S	750	15	170	9.25	4.50	234.95	114.30	G	3 lb 4 oz
30	MLC-750-30S	750	18	180	9.25	4.50	234.95	114.30	G	3 lb 4 oz

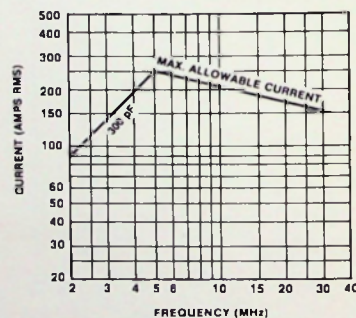
*C-Ceramic/G-Glass

CFHD 300

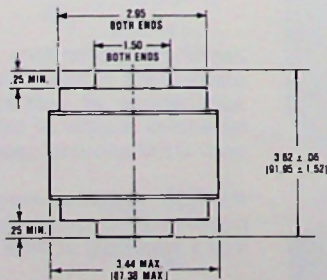


Mounting: Both ends have tapped holes.

CONTINUOUS RMS AMPERES vs FREQUENCY (at 36kV PEAK WORKING VOLTAGE)

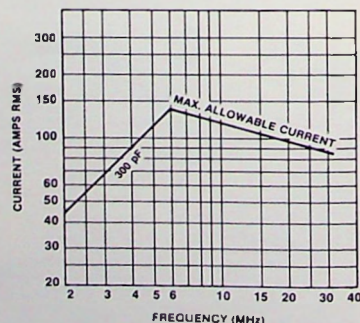


CFED 300

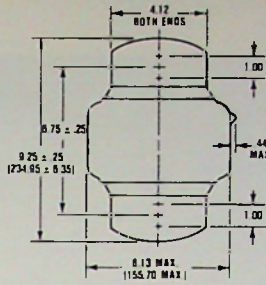
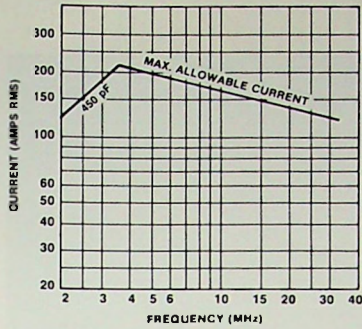


Mounting: Ferrule mount both ends. Use FMIH flange (pg. 62).

CONTINUOUS RMS AMPERES vs FREQUENCY (at 18kV PEAK WORKING VOLTAGE)



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 33kV PEAK WORKING VOLTAGE)

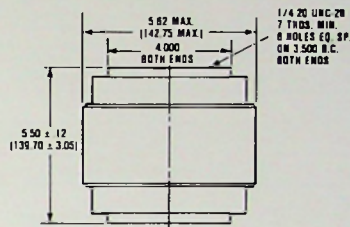
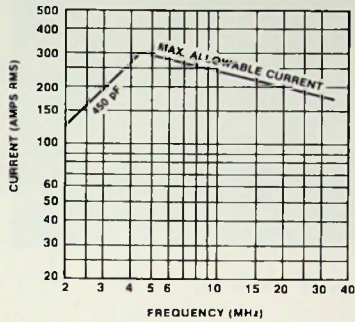


Mounting: Use flange FM4 on both ends (pg. 62).

**MMHC
450**



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 33kV PEAK WORKING VOLTAGE)

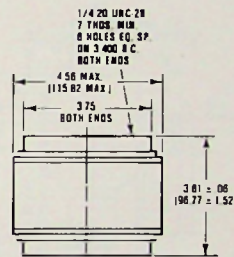
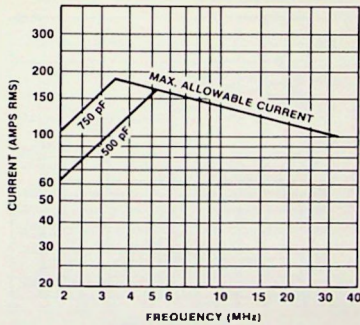


Mounting: Both ends have tapped holes.

**CFHP
450**



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 15kV PEAK WORKING VOLTAGE)

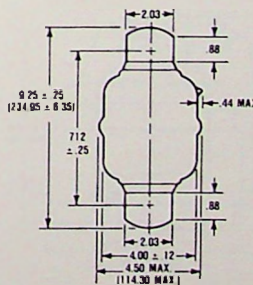
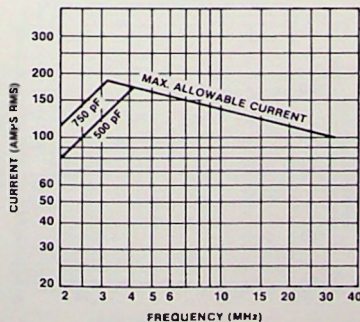


Mounting: Both ends have tapped holes.

**CFED
500, 750**



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 18kV PEAK WORKING VOLTAGE)



Mounting: Use flange FM2D on both ends (pg. 62).

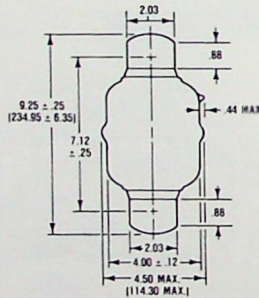
**MLC
500, 750**



PEAK TEST VOLTAGE (kV)	MODEL NUMBER	CAPACITY (pF) ±5%	PEAK WORKING VOLT. (kV)	AMPS (RMS) MAX.	NOMINAL DIMENSIONS				TYPE (*)	WEIGHT (NOM.) Lbs.
					INCHES		MILLIMETERS			
					LENGTH	DIAMETER	LENGTH	DIAMETER		
25	MLC-1000-25S	1000	15	180	9.25	4.50	234.95	114.30	G	4 lb 4 oz
30	MLC-1000-30S	1000	18	200	9.25	4.50	234.95	114.30	G	4 lb 4 oz
40	CFHP1000-D2578-40S	1000	24	330	12.75	7.20	323.8	182.80	C	17 lb 5 oz
45	CFHP1000-D2578-45S	1000	27	340	12.75	7.20	323.8	182.80	C	17 lb 5 oz
50	CFHP1000-D2578-50S	1000	30	350	12.75	7.20	323.8	182.80	C	17 lb 5 oz
25	CFED-1000-25S	1000	15	180	3.81	4.56	96.77	115.82	C	5 lb 13 oz
40	CFHP-1000-40S	1000	24	330	6.20	7.20	157.48	182.88	C	13 lb
45	CFHP-1000-45S	1000	27	340	6.20	7.20	157.48	182.88	C	13 lb
50	CFHP-1000-50S	1000	30	350	6.20	7.20	157.48	182.88	C	13 lb
25	CFFP-2000-25S	2000	15	330	5.80	8.20	147.32	208.28	C	23 lb 8 oz
30	CFFP-2000-30S	2000	18	345	5.80	8.20	147.32	208.28	C	23 lb 8 oz
35	CFFP-2000-35S	2000	21	360	5.80	8.20	147.32	208.28	C	23 lb 8 oz
30	CFHM-2000-0030**	2000	18	375	6.04	8.20	153.40	208.28	C	23 lb 8 oz
35	CFHM-2000-0035**	2000	21	390	6.04	8.20	153.40	208.28	C	23 lb 8 oz
40	CFHM-2000-0040**	2000	24	400	6.04	8.20	153.40	208.28	C	23 lb 8 oz
25	CFFM-2500-0025**	2500	15	390	5.78	8.20	146.81	208.28	C	23 lb 8 oz
30	CFFM-2500-0030**	2500	18	400	5.78	8.20	146.81	208.28	C	23 lb 8 oz

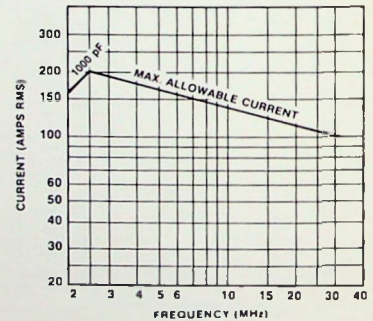
*C-Ceramic/G-Glass/**Available with metric thread mounting.

MLC 1000



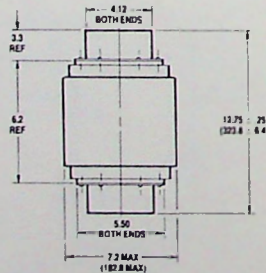
Mounting: Use flange FM2D on both ends (pg. 62).

CONTINUOUS RMS AMPERES vs FREQUENCY (at 18kV PEAK WORKING VOLTAGE)



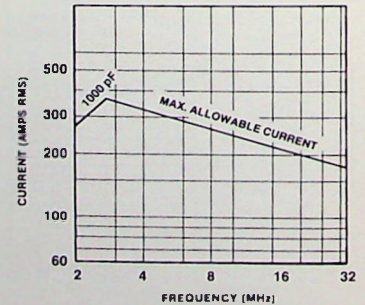
CFHP 1000-D2578

SAME AS THE CFHP 1000 WITH ADAPTER PLATES. SEE PAGE 57.

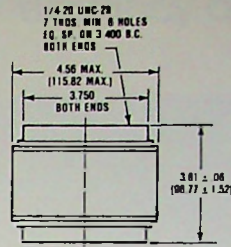
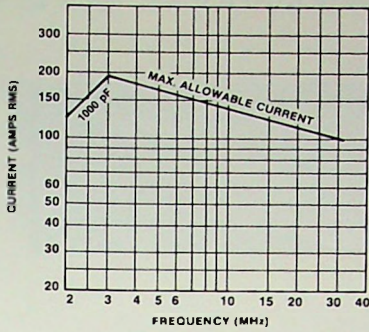


Mounting: Use flange FM4 on both ends (pg. 62).

CONTINUOUS RMS AMPERES vs FREQUENCY (at 30kV PEAK WORKING VOLTAGE)



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 15kV PEAK WORKING VOLTAGE)

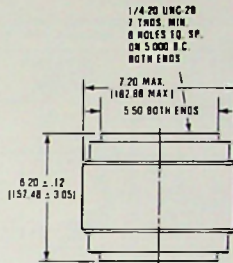
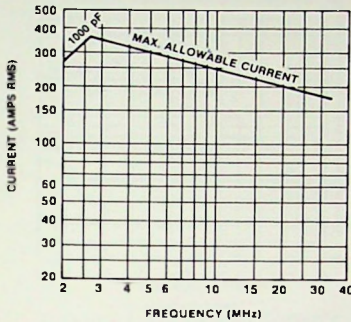


Mounting: Both ends have tapped holes.

**CFED
1000**



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 30kV PEAK WORKING VOLTAGE)

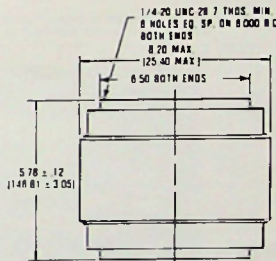
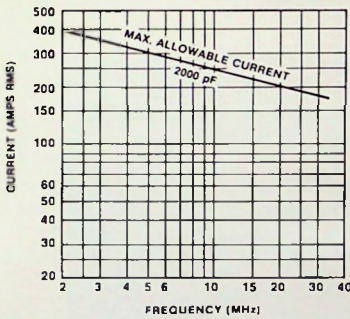


Mounting: Both ends have tapped holes.

**CFHP
1000**



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 21kV PEAK WORKING VOLTAGE)

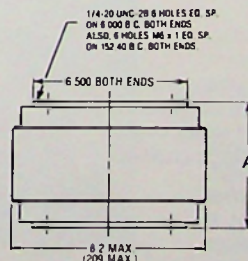
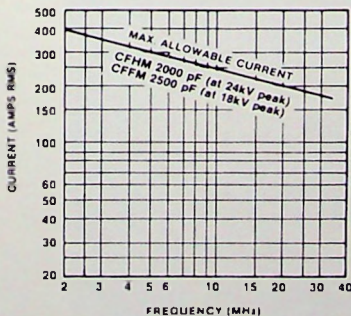


Mounting: Both ends have tapped holes.

**CFFP
2000**



CONTINUOUS RMS AMPERES vs FREQUENCY
(at PEAK WORKING VOLTAGE)



Mounting: Both ends have tapped holes.

**Available with metric thread mount

**CFHM
2000****

A = 6.04 ± .20
(153.4 ± 5)

**CFFM
2500****

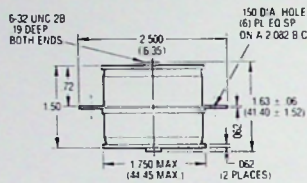
A = 5.78 ± .12
(147 ± 4)



PEAK TEST VOLTAGE (kV)	MODEL NUMBER	CAPACITY (pF) ±10%	PEAK WORKING VOLT. (kV)	AMPS (RMS) MAX.	NOMINAL DIMENSIONS				TYPE (*)	WEIGHT (NOM.) Lbs.
					INCHES		MILLIMETERS			
					LENGTH	DIAMETER	LENGTH	DIAMETER		
15	CFT-25-0015	25	10	23	1.63	1.75	41.40	44.45	C	3.4 oz
20	CFT-25-0020	25	13	24	1.63	1.75	41.40	44.45	C	3.4 oz
25	CFT-25-0025	25	18	27	1.63	1.75	41.40	44.45	C	3.4 oz

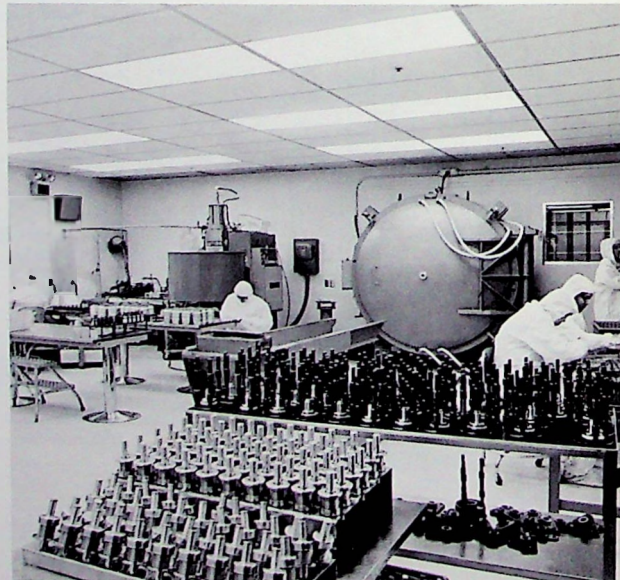
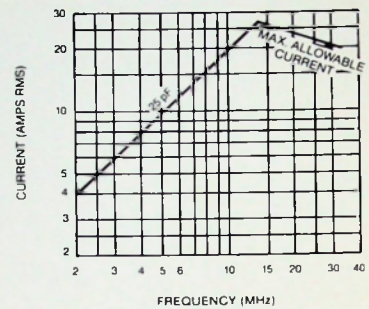
*C-Ceramic/G-Glass

CFT 25



Mounting: Brazed-on flanges.

CONTINUOUS RMS AMPERES vs FREQUENCY (at 18kV PEAK WORKING VOLTAGE)



Operational since 1974, our clean room brazing furnace is a combination high vacuum pumping and brazing station that performs both functions simultaneously. It has made major contributions to product improvement and effectiveness.

5-15kV gas variable capacitors

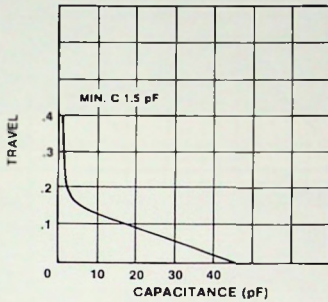
45-50 pF

Hi-Q low inductance — for high frequency applications

PEAK TEST VOLTAGE (kV)	MODEL NUMBER	CAPACITY RANGE (pF)	PEAK WORKING VOLT. (kV)	AMPS (RMS) MAX.	NOMINAL DIMENSIONS			TYPE (*)	TORQUE (In. oz.) MAX.	PUSH FORCE @ 25°C	WEIGHT (NOM.) Lbs.	
					INCHES		MILLIMETERS					
					LENGTH	DIAMETER	LENGTH					DIAMETER
5	CHV1-45-0105	1.5-45	3	18	3.50	0.88	88.90	22.2	C	N/A	20 lb	3 oz
15	CHV1-50-0015	2.5-50	9	30	6.40	1.44	162.64	36.6	C	N/A	25 lbs	12 oz

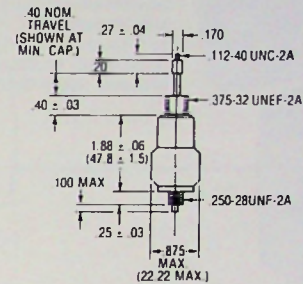
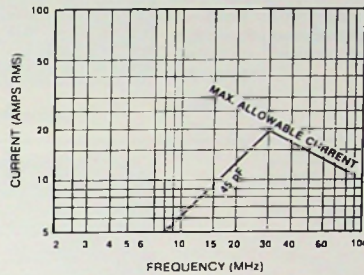
*C-Ceramic

CAPACITY vs TRAVEL
Typical Data



CHV1N (Non-Magnetic) Available

CONTINUOUS RMS AMPERES vs FREQUENCY
(at 3kV PEAK WORKING VOLTAGE)

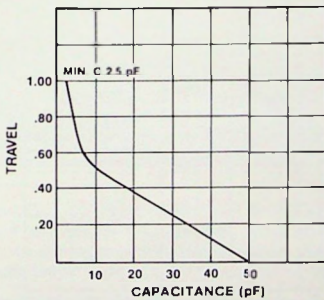


Mounting: Fixed and variable end threaded.

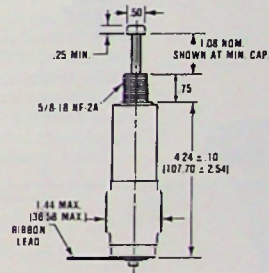
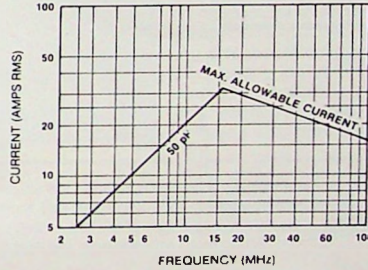
CHV1 45



CAPACITY vs TRAVEL
Typical Data



CONTINUOUS RMS AMPERES vs FREQUENCY
(at 9kV PEAK WORKING VOLTAGE)



Mounting: Fixed end solder terminal.
Variable end threaded.

CHV1 50



Having years of experience and expertise in the trained disciplines of vacuum technology, Jennings is able to apply these techniques and principles to gas (pressurization) components and guarantee product quality.

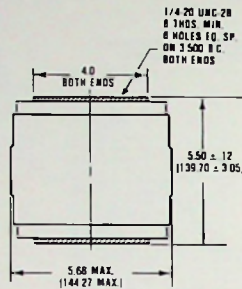
10-50kV gas fixed capacitors for DC blocking applications

500-1000 pF

PEAK TEST VOLTAGE (kV)	MODEL NUMBER	CAPACITY (pF) ±5%	MAX. PEAK WORKING VOLT. (kV) RF + DC	MAX. PEAK WORKING VOLT. (kV) RF or DC	AMPS (RMS) MAX.	NOMINAL DIMENSIONS				TYPE (") Lbs.	WEIGHT (NOM.) Lbs.
						INCHES		MILLIMETERS			
						LENGTH	DIAMETER	LENGTH	DIAMETER		
40	CGF2-500-0040	500	30	20	230	5.50	5.68	139.70	144.27	C	11 lb 8 oz
45	CGF2-500-0045	500	35	22	235	5.50	5.68	139.70	144.27	C	11 lb 8 oz
50	CGF2-500-0050	500	40	25	240	5.50	5.68	139.70	144.27	C	11 lb 8 oz
10	CGF1-1000-0010	1000	8	6	180	3.50	4.75	88.9	120.7	C	7 lb 8 oz
15	CGF1-1000-0015	1000	8	9	200	3.50	4.75	88.9	120.7	C	7 lb 8 oz
20	CGF1-1000-0020	1000	18	12	215	3.50	4.75	88.9	120.7	C	7 lb 8 oz
25	CGF2-1000-0025	1000	20	15	230	3.95	6.03	100.33	153.2	C	13 lb 4 oz
30	CGF2-1000-0030	1000	25	18	250	3.95	6.03	100.33	153.2	C	13 lb 4 oz
35	CGF2-1000-0035	1000	30	20	270	3.95	6.03	100.33	153.2	C	13 lb 4 oz

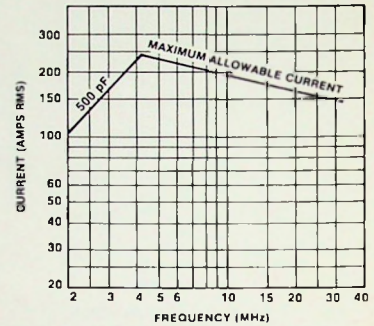
*C-Ceramic

CGF2 500

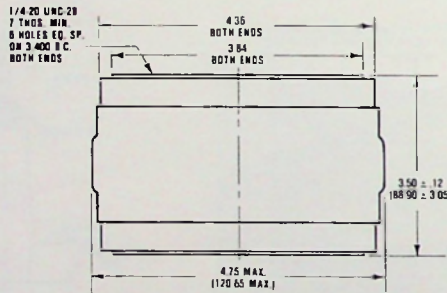


Mounting: Both ends have
tapped holes.

CONTINUOUS RMS AMPERES vs FREQUENCY
(at 25kV PEAK WORKING VOLTAGE)

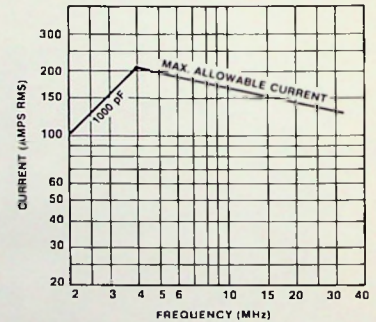


CGF1 1000

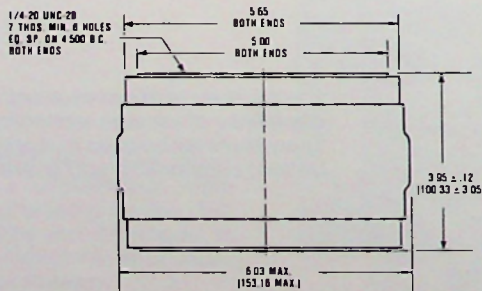


Mounting: Both ends have tapped holes.

CONTINUOUS RMS AMPERES vs FREQUENCY
(at 12kV PEAK WORKING VOLTAGE)

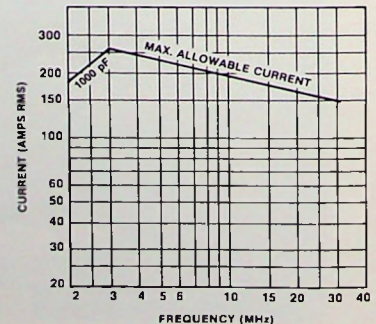


CGF2 1000



Mounting: Both ends have tapped holes.

CONTINUOUS RMS AMPERES vs FREQUENCY
(at 20kV PEAK WORKING VOLTAGE)



test instruments

Jennings high voltage instruments allow direct measurement of the most important voltage parameters that apply to all AC wave-forms, whether sinusoidal, pulse, repetitive transient or combination signals. The instruments are small and highly portable and operate from line voltages. The instruments have proven to be very versatile in the number of applications including production processing for contin-

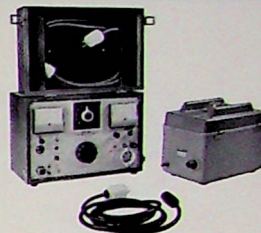
uous monitoring of voltage withstand; used in laboratories for verification of design features; and troubleshooting for on-site installations.

Comprehensive data sheets on individual instruments are available upon request. In addition, demonstrations can be arranged in your plant.

SPECIFICATIONS	MODEL JHP-70A
Maximum Output Voltage	70 kV Peak
Maximum Continuous Current	21 MA RMS
Short Circuit Current (Est.)	100 MA RMS
Power Requirements	105-125 Volts RMS*
Frequency	50-60 Hz
Current	15 Amps
Surge Current	20 Amps
Weight:	
Control Cabinet	28 lbs
Transformer	43 lbs

*NOTE: 230 volt version available upon special request.

Portable AC High Voltage Tester Model JHP-70A



The smallest and lightest instrument available at its power level the JHP-70A will generate and measure 70,000 volts peak for on-site testing of high voltage components such as capacitors, switches, transformers, bushings, vacuum tubes, etc.

SPECIFICATIONS	MODEL 13200
Voltage	50 kV peak
Current	12.5 amperes RMS maximum through the voltage divider.
Input Impedance	Above 10^{12} ohms, 4 pfd
High Frequency Response	Flat to 10 MHz at 50 kV peak; maximum frequency 50 MHz at 20 kV peak
Division Ratio	As requested, 325:1, 1000:1 or 2000:1
Low Frequency Response when operated into shunt resistance of:	
1 megohm	1000 Hz
10 megohms	100 Hz
Weight	2 lbs 4 oz

High Voltage AC Divider Model 13200

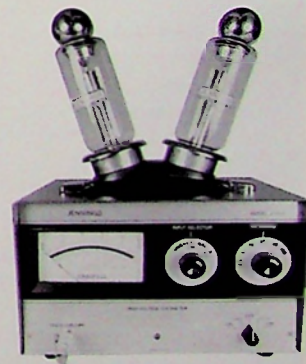


These dividers can be used with an oscilloscope to measure and observe voltages up to 50 kV at frequencies up to 20 MHz. Their low circuit loading design and shielded construction make them particularly suitable for rf measurement applications including tank circuit and transmission line voltages, pulse parameters, modulation voltages, and transient wave characteristics.

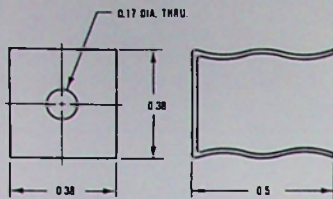
A compact, portable instrument for the accurate, direct reading of very high voltages at rf, audio and power frequencies... determination of the amplitude of pulses with oscilloscope connections for viewing wave shapes... removable high voltage input circuit for remote panel mounting of the meter... internal battery and ac line operation.

Solid State AC Voltmeter Model J-1005

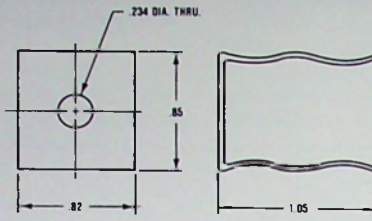
SPECIFICATIONS	MODEL J-1005
Voltage Ranges	Peak Kilovolts (single-ended) 0-2.5, 0-5, 0-10, 0-25, 0-50 Peak Kilovolts (double-ended) 0-2.5, 0-5, 0-10, 0-25, 0-50, 0-100
Frequency Response	10 Hz to 30 MHz at full rated voltage.
Accuracy	3% of full scale on all voltage ranges.
Oscilloscope Connection	600 to 1 division ratio (approx.)
Meter Calibration	The meter is calibrated in peak kilovolts with linear voltage scales of 0-2.5, 0-5, 0-10, 0-25, 0-50.
Input Impedance	Greater than 2×10^{12} ohms and approx. 4 pf single-ended to ground, 2 pf double-ended.
Power Supply	117/230 volts \pm 10%, 50/60 Hz, 5 watts, or rechargeable battery.
Dimensions	Height, 16"; width, 10 3/4"; depth, 8".
Net Weight	12 pounds (approx.).



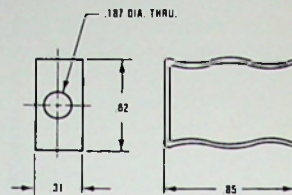
fuse clips and flanges



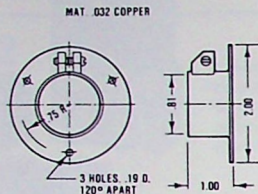
FUSE CLIP No. 104277



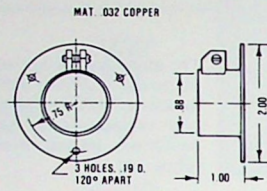
FUSE CLIP No. 112304



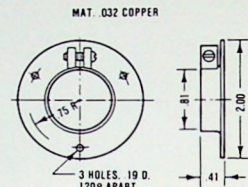
FUSE CLIP No. 111515



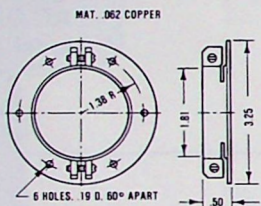
FMOA Flange Mount



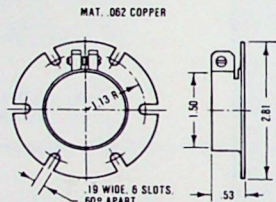
FMOB Flange Mount



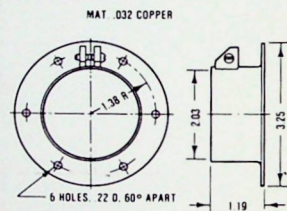
FMOD Flange Mount



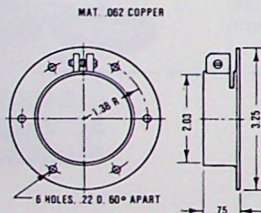
FM1C Flange Mount



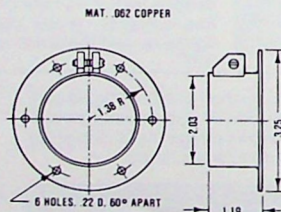
FM1H Flange Mount



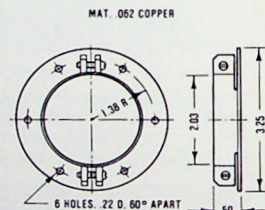
FM2 Flange Mount



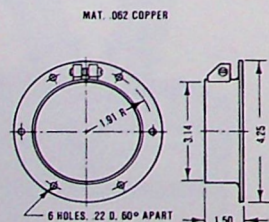
FM2B Flange Mount



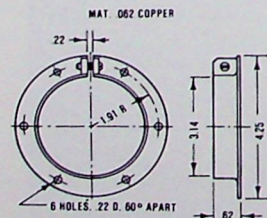
FM2D Flange Mount



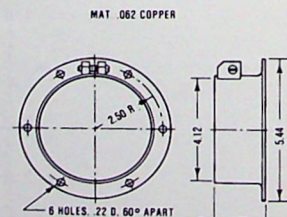
FM2S Flange Mount



FM3B Flange Mount



FM3C Flange Mount



FM4 Flange Mount

Jennings warranty policy

A. WARRANTY

Jennings warrants that, at the time of shipment, the products manufactured by Jennings and sold hereunder will be free from defects in material and workmanship and will conform to the specifications furnished by or approved, in writing, by Jennings.

B. WARRANTY ADJUSTMENT

1. If any defect within this warranty appears, Purchaser shall notify Seller immediately.
2. Jennings agrees to repair or furnish a replacement for, but not install, any product which, within three years from the date of shipment by Jennings, shall, upon test and examination by Jennings, prove defective within the above warranty.
3. No product will be accepted for return or replacement without the written authorization of Jennings. Upon such authorization and in accordance with instructions by Jennings, the product will be returned to Jennings, shipping charges prepaid by Purchaser.

C. EXCLUSIONS FROM WARRANTY

1. THE FOREGOING WARRANTY IS IN LIEU OF AND EXCLUDES ALL OTHER EXPRESSED OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS OR OTHERWISE.
2. Jennings will not be liable for any special incidental or consequential damages or for loss, damages or expense directly or indirectly arising from the use of the products or any inability to use them either separately or in combination with any other equipment or material or from any other cause.
3. The warranty does not extend to any product manufactured by Jennings which has been subjected to misuse, neglect, accident, improper installation or to use in violation of instructions furnished by Jennings.
4. The warranty does not extend to nor apply to any unit which has been repaired or altered at any place other than at a Jennings factory by persons not expressly approved by Jennings, nor to any unit, the serial number of which has been removed or defaced or changed.

5. This warranty applies to new equipment only and will cover repaired or replacement items only to the extent of the three years from the date of shipment of the original equipment noted above in paragraph B2.

How to Order

To expedite shipment of your order, please supply the following information when ordering:

CATALOG NUMBER
QUANTITY
CAPACITY (range)
PEAK TEST VOLTAGE
PEAK WORKING VOLTAGE
TYPE OF OPERATION (DC or AC)
MOUNTING FLANGES (if required)
SPECIAL REQUIREMENTS

Terms and Shipment

Unless otherwise specified on your order, shipment will be made via most economical method. If a specific carrier is specified, shipment will be made at full valuation unless your order instructs differently. In case air shipment and full valuation are desired, please specify whether air express or air freight. Lacking specification full valuation will be used.

Normally all prices and quotations are F.O.B. San Jose, CA.

Terms are Net 30 Days.

Specifications subject to change.

Capacitor Patents

Capacitors made by Jennings are manufactured under one or more of the following issued patents:

3242397	3541405
3270259	3571677
3257590	4002957
3366852	4007406
3496431	



WARNING

HAZARDOUS VOLTAGE CAN SHOCK, BURN OR CAUSE DEATH. DO NOT SERVICE BEFORE DISCONNECTING POWER.

In the testing or application of these capacitors, high-voltage safety precautions must **always** be observed! If voltage is applied to these capacitors, care must be taken to assure that they are properly discharged prior to subsequent handling. Capacitors should be shorted by putting an insulated wire or other permanent short-circuit between the capacitor terminals.

Jennings... Your Source for Vacuum & Gas Capacitors

In addition to the years of experience in building vacuum capacitors, Jennings has acquired many exclusive processing techniques that assure superior performance. Jennings has a qualified, experienced engineering staff plus complete high voltage laboratories for proper testing of vacuum capacitors at all power levels from microwatts through 100 KW of dc and rf. If a new design or modification of a standard unit is necessary, Jennings' quick-response laboratory can turn it out in a minimum of time.

For immediate help on your specific capacitor application, fill out and mail Jennings the handy postage paid reply card. We welcome the opportunity to be of service.

OTHER JENNINGS PRODUCTS

Vacuum Interrupters
Vacuum Contactors
Vacuum Coaxial Relays
Kilovoltmeters
High Potential Testers
Vacuum and Gas Relays

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