

# EITEL-McCULLOUGH, INC.

SAN BRUNO, CALIFORNIA

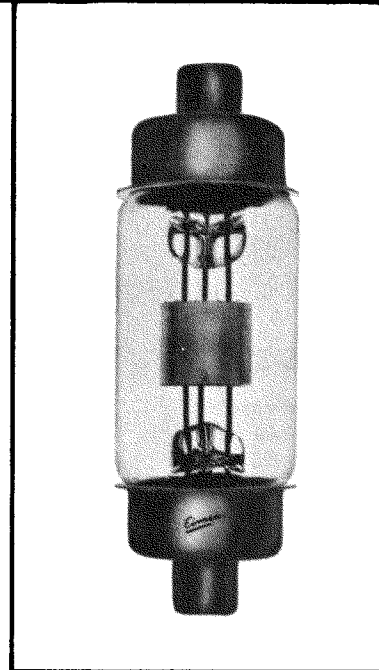
# VACUUM CAPACITORS

VC50-32	VC50-20
VC25-32	VC25-20
VC12-32	VC12-20
VC6-32	VC6-20

Eimac vacuum capacitors are small, vacuum-dielectric units intended principally for use as all or part of the plate tank capacitance in radio-frequency amplifiers or oscillators. They are also frequently used as high-voltage coupling and by-pass capacitors at high frequencies and as high-voltage neutralizing capacitors, when used in conjunction with small high-voltage variable capacitors having a small capacitance range. The use of a vacuum as a dielectric permits the construction of a comparatively small, lightweight capacitor for a given voltage rating and capacitance. In addition, the effects of dust and atmospheric conditions on the capacitor are eliminated by sealing the plates within a glass envelope.

These capacitors are manufactured in two maximum peak voltage ratings, 32,000 and 20,000 volts, and in capacitances of 6, 12, 25 and 50  $\mu\text{fd}$ . All types have a maximum current rating of 28 amperes. Each of the capacitors may be operated at its full maximum voltage rating at any frequency below that at which the rms current through the capacitor is 28 amperes. Above this frequency, the r-f voltage across the capacitor must be reduced as the frequency increases, to prevent the current from exceeding the maximum rating. The graphs below show the maximum peak r-f voltage which may be applied to each type of capacitor at frequencies between 100 kilocycles and 50 megacycles. Curves are also shown which indicate the rms current flowing through the capacitor under maximum r-f voltage conditions at any frequency between 100 kilocycles and 50 megacycles. Where both r-f and d-c voltages are applied to the capacitor, the sum of the peak r-f and d-c voltages must not exceed the peak voltage rating of the capacitor.

Eimac vacuum capacitors are provided with terminals which allow the use of standard 60-ampere fuse clips for mounting. These clips must be kept clean and must at all times make firm and positive contact with the capacitor terminals. Failure to maintain a low-resistance contact to the capacitor terminals may result in excessive heating and permanent damage to the capacitor seals.

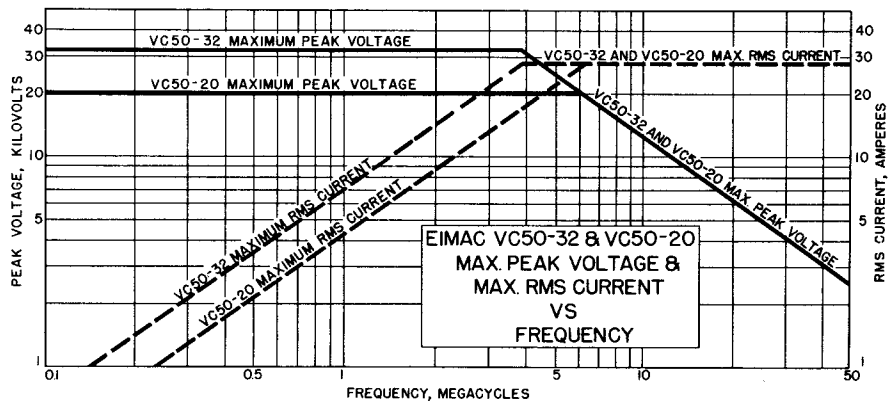


## VC50-32

Capacitance\* . . . . . 50  $\mu\text{fd}$ .  
 Max. Peak Voltage . . . . . 32,000 volts  
 Max. RMS Current . . . . . 28 amps.

## VC50-20

Capacitance\* . . . . . 50  $\mu\text{fd}$ .  
 Max. Peak Voltage . . . . . 20,000 volts  
 Max. RMS Current . . . . . 28 amps.

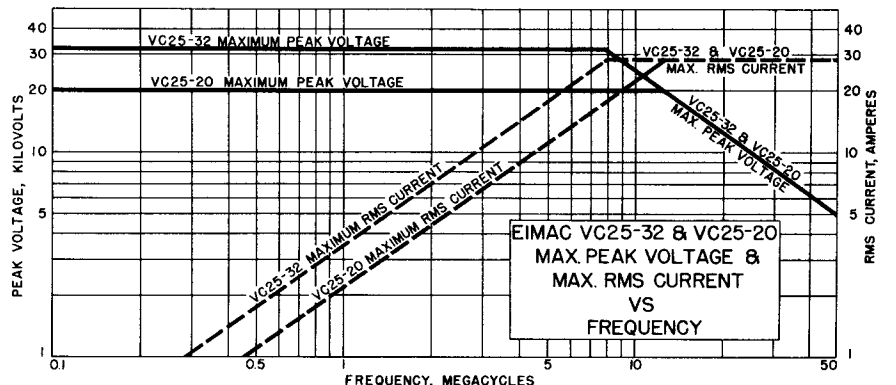


## VC25-32

Capacitance\* . . . . . 25  $\mu\text{fd}$ .  
 Max. Peak Voltage . . . . . 32,000 volts  
 Max. RMS Current . . . . . 28 amps.

## VC25-20

Capacitance\* . . . . . 25  $\mu\text{fd}$ .  
 Max. Peak Voltage . . . . . 20,000 volts  
 Max. RMS Current . . . . . 28 amps.

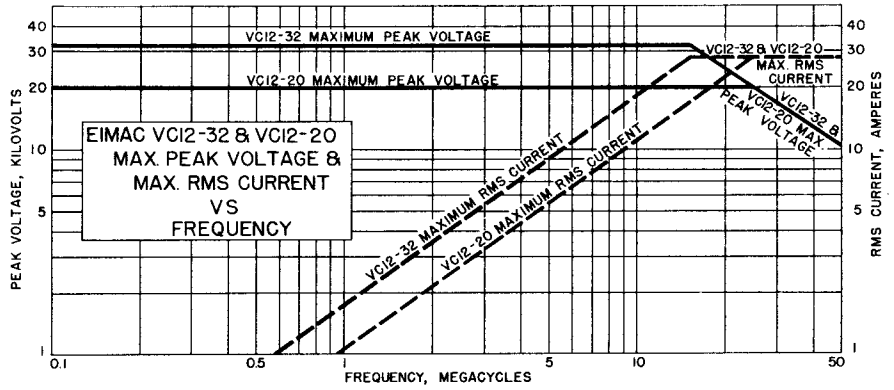


### VC12-32

Capacitance\* . . . . .  $12 \mu\mu\text{fd.}$   
 Max. Peak Voltage . . . . . 32,000 volts  
 Max. RMS Current . . . . . 28 amps.

### VC12-20

Capacitance\* . . . . .  $12 \mu\mu\text{fd.}$   
 Max. Peak Voltage . . . . . 20,000 volts  
 Max. RMS Current . . . . . 28 amps.

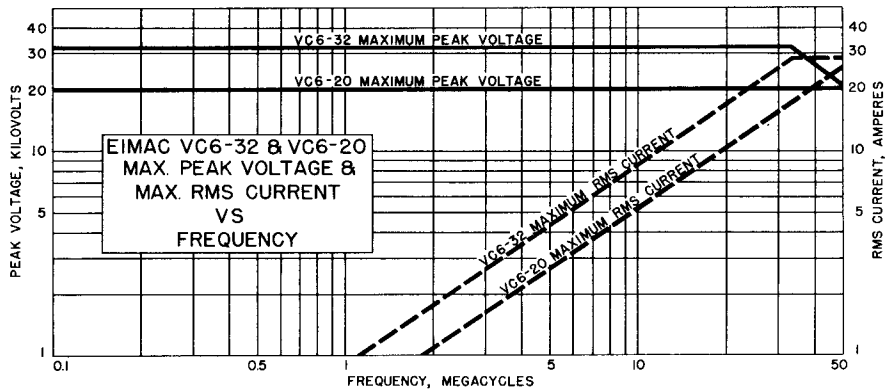


### VC6-32

Capacitance\* . . . . .  $6 \mu\mu\text{fd.}$   
 Max. Peak Voltage . . . . . 32,000 volts  
 Max. RMS Current . . . . . 28 amps.

### VC6-20

Capacitance\* . . . . .  $6 \mu\mu\text{fd.}$   
 Max. Peak Voltage . . . . . 20,000 volts  
 Max. RMS Current . . . . . 28 amps.



\*Tolerances:

VC50-32, VC50-20 . . . . .  $\pm 1 \mu\mu\text{fd.}$ ; VC25-32, VC25-20 . . . . .  $\pm 1 \mu\mu\text{fd.}$ ; VC12-32, VC12-20 . . . . .  $\pm 1 \mu\mu\text{fd.}$ ; VC6-32, VC6-20 . . . . .  $\pm 0.5 \mu\mu\text{fd.}$

