

The New Amateur CLASS "B" TUBE

Low-Distortion Zero Bias Amplifier

NEW AMPEREX ZB 120

A high current low voltage tube with the following general characteristics and ratings:

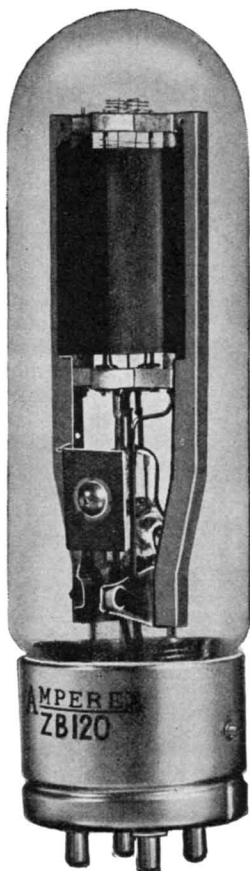
Amplification Factor.....90
Grid to Plate Transconductance at 100 ma.....5,000
Filament Voltage.....10 volts
Filament Current.....2 amps
Maximum Allowable Plate Dissipation.....75 watts

The combination of an amplification factor of 90 and a transconductance of 5000 is only approached in one or two of the larger transmitting tubes. This combination of characteristics in a low cost tube is made possible by exclusive Amperex design features (covered by pending patents). It is these design elements which invest the ZB 120 with the properties that enable it to deliver, under similar operating conditions, at zero bias, power outputs of an amplitude equivalent to larger and costlier tubes, with such a greatly reduced distortion factor, that the tube may be practically termed "DISTORTIONLESS."

The excellence of its performance in various classes of service can be judged from the following paragraphs.

PERFORMANCE AS CLASS B AUDIO AMPLIFIER-MODULATOR

Zero Bias for Plate Voltages up to 1250 volts. Power output up to 300 watts per pair of tubes. Straight line dynamic transfer characteristics, and practically constant and high input resistance, minimize circuit requirements and make possible practically distortionless operation with exceptionally low driving power.



PERFORMANCE AS LINEAR RF POWER AMPLIFIER

The special characteristics of this tube that result in its ideal operation as a Class B Audio amplifier, also afford superior performance with minimized circuit requirements in Class B RF amplifier service. Carrier output in the order of 40 to 50 watts per tube are readily attainable in this service.

CLASS C—RF POWER AMPLIFIER

In this class of service the ZB 120 will deliver up to 150 watts of r.f. power with lower driving power requirements and at economical plate voltages.

FREQUENCY MULTIPLYING POWER AMPLIFIER

The exceptionally high μ coupled with a high r.f. grid voltage tolerance, makes practical the use of the ZB 120 as a frequency multiplying final amplifier, with consequent savings in total tube costs and elimination of neutralization requirements.

GRID MODULATED POWER AMPLIFIERS

The characteristics of the ZB 120, ideally adapt it for use as a grid or bias modulated class C amplifier, or doubler amplifier. In this class of service, fully modulated carrier outputs of the order of 40 to 50 watts may be obtained even while doubling, with exceptionally low modulation distortion.

\$10

Additional engineering information and typical performance data may be obtained by writing to our engineering department.

AMPEREX ELECTRONIC PRODUCTS, Inc.

79 WASHINGTON STREET

BROOKLYN, NEW YORK