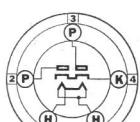
Sylvania

TYPE 84

HIGH VACUUM FULL-WAVE RECTIFIER



CHARACTERISTICS

Heater Voltage AC or DC	6.3 Volts
Heater Current	0.5 Ampere
Maximum Over-all Length	4¼"
Maximum Diameter	1⅛"
Bulb	ST-12
Base—Small 5-Pin	5-D

Operating Conditions and Characteristics:

Heater Voltage	6.3 Volts
A-C Voltage per Plate (RMS)	350 Volts Max.
D-C Output Current	75 Ma. Max.
Voltage between Heater and Cathode	400 Volts DC Max.

Note: For rectifier curve data see Page 158.

CIRCUIT APPLICATION

The use of the Sylvania 84 in B voltage supply units for automobile radio equipment is highly recommended. Designed to permit a voltage difference between heater and cathode of 400 volts d.c., the rectifier may be operated from the same A-battery as the set tubes.

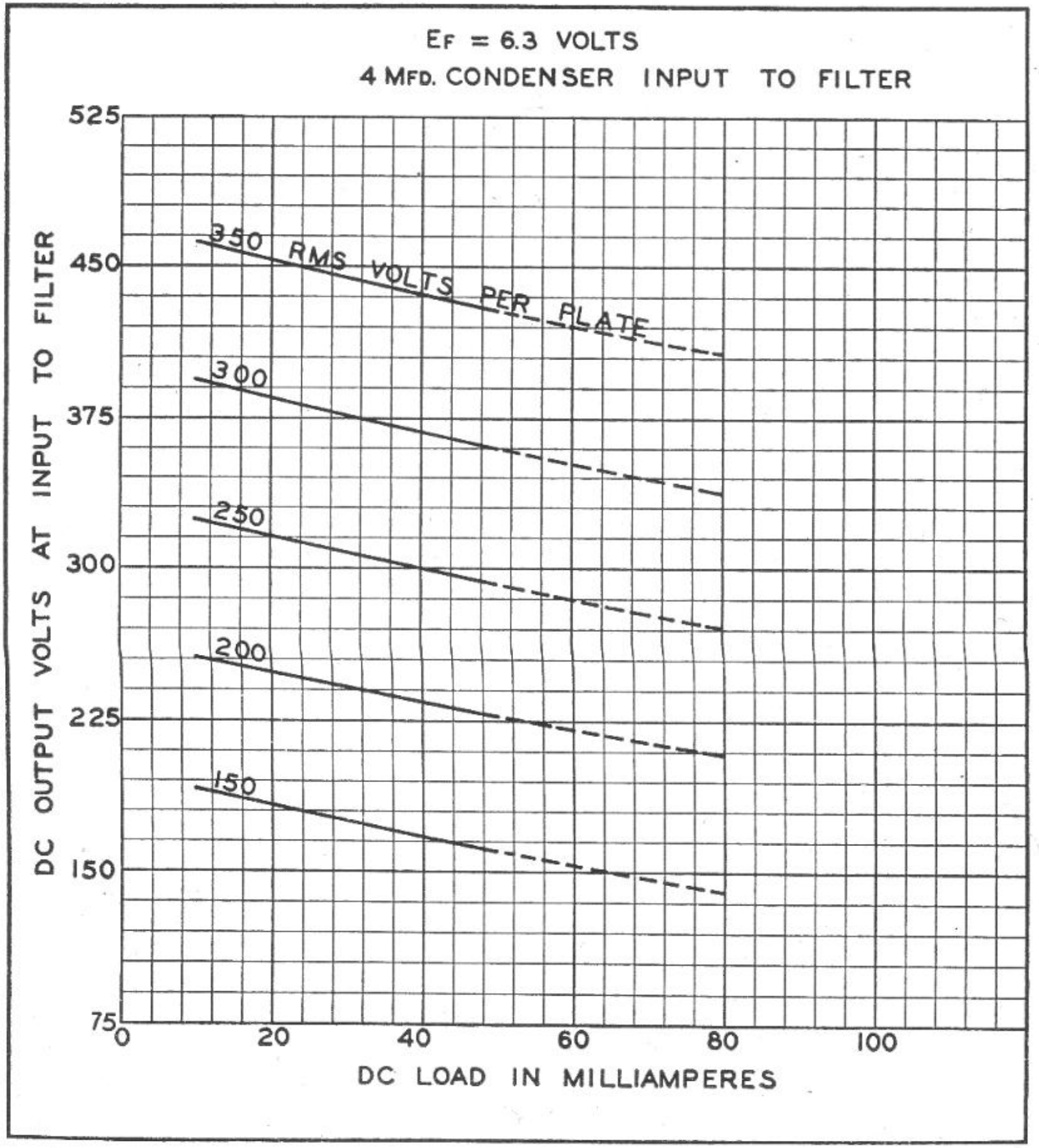
In order to obtain satisfactory output and regulation, careful consideration should be given to secure proper filtering. Filter circuits of the condenser-input or the choke-input type are applicable.

The d-c output will be considerably greater with a condenser-input filter than when the other type is used. Also, it will be true that higher peak plate currents are to be encountered. The first condenser in the filter circuit, therefore, should not have too large a capacity. It is not likely that the a-c input voltage will be a pure sine wave form so that the instantaneous peak values may be considerably greater than 1.4 times the r-m-s value. The voltage ratings of the condensers must be such as to handle the maximum peak values encountered.

To adapt the 84 to half-wave circuits it is only necessary to tie the two plates together at the socket, so as to form a single element.

It may also be employed in compact a-c receivers utilizing 6 volt tubes, to supply high voltage direct current. The a-c voltage applied should be limited to 350 volts r-m-s per plate. The use of Type 84 in this circuit requires only two secondary windings on the transformer, a high voltage center tapped winding and a 6.3 volt heater supply winding. Since this tube is of the indirectly heated type, the voltage rating on the filter condensers may be lower than that required for a filament type rectifier, because the other tubes in the receiver will be heated sufficiently to draw current.

TYPES 84, 6X5G



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