

Full-Wave Vacuum Rectifier

GENERAL DATA

Electrical:

Filament, Coated:

Voltage (AC or DC) 5 volts
 Current 3 amp

Mechanical:

Operating Position Vertical, base down or up, or
 Horizontal with pins 1 and 4 in vertical plane

Maximum Overall Length 4-5/8"

Maximum Seated Length 4-1/16"

Diameter 1.438" to 1.562"

Bulb T12

Base Short Medium-Shell Octal 5-Pin
 with External Barriers, Style B, Arrangement 1

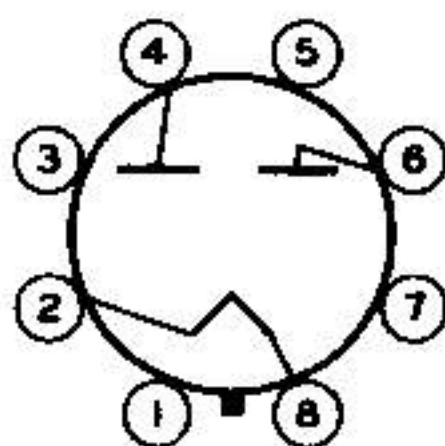
(JEDEC Group 1, No. B5-121), or

Short Medium-Shell Octal 8-Pin

with External Barriers, Style B (JEDEC Group 1, No. B8-118)

Basing Designation for BOTTOM VIEW 5T

Pin 1 - No Connection
 Pin 2 - Filament
 Pin 3 - No Connection



Pin 4 - Plate No. 2
 Pin 5 - Same as Pin 3
 Pin 6 - Plate No. 1
 Pin 7 - Same as Pin 3
 Pin 8 - Filament

FULL-WAVE RECTIFIER

Maximum Ratings, Design-Center Values:

For power-supply frequencies of 25 to 1000 cps

PEAK INVERSE PLATE VOLTAGE 1550 max. volts

AC PLATE SUPPLY VOLTAGE PER PLATE
 (RMS, without load) See Rating Chart I

STEADY-STATE PEAK PLATE CURRENT
 PER PLATE (See Rating Chart II) 1 max. amp

TRANSIENT PEAK PLATE CURRENT
 PER PLATE (See Rating Chart III) 4.6 max. amp

DC OUTPUT CURRENT See Rating Chart I

Typical Operation:

With capacitor- With choke-
 input filter input filter

| AC Plate-to-Plate Supply Voltage (RMS, without load) | 600 | 900 | 1100 | volts |
|--|-----|-----|------|--------|
| Filter-Input Capacitor ^b | 40 | 40 | - | μf |
| Filter-Input Choke | - | - | 10 | henrys |

← Indicates a change.



OPERATION CHARACTERISTICS Full-Wave Circuit, Capacitor-Input Filter

$E_f = 5$ VOLTS AC

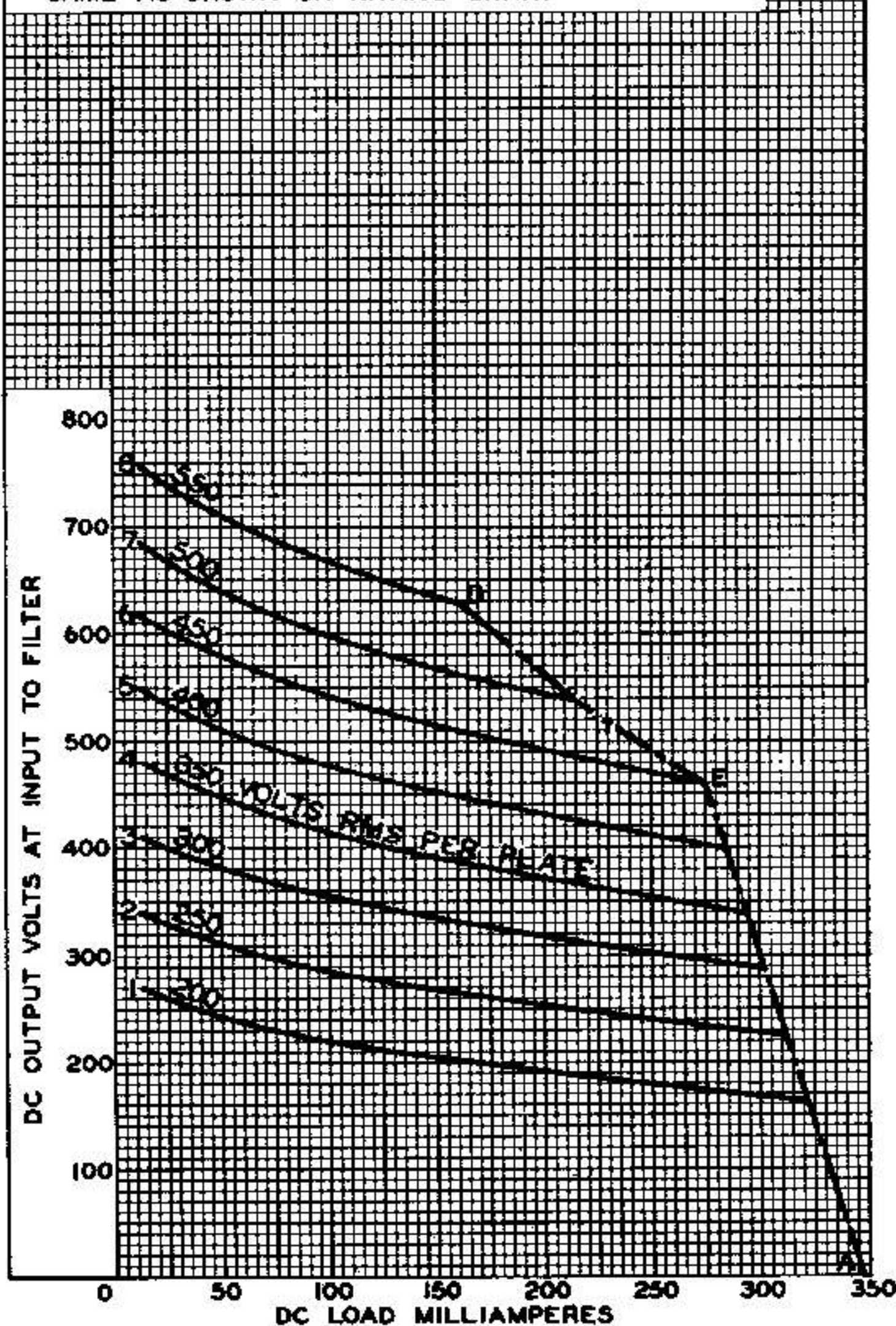
SUPPLY FREQUENCY (CPS) = 60

CAPACITOR (C) INPUT TO FILTER: (μf) = 40

TOTAL EFFECTIVE PLATE SUPPLY IMPEDANCE

| PER PLATE | CURVE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-----------|-------|----|----|----|----|----|----|----|----|
| | OHMS | 11 | 11 | 20 | 36 | 52 | 67 | 82 | 97 |

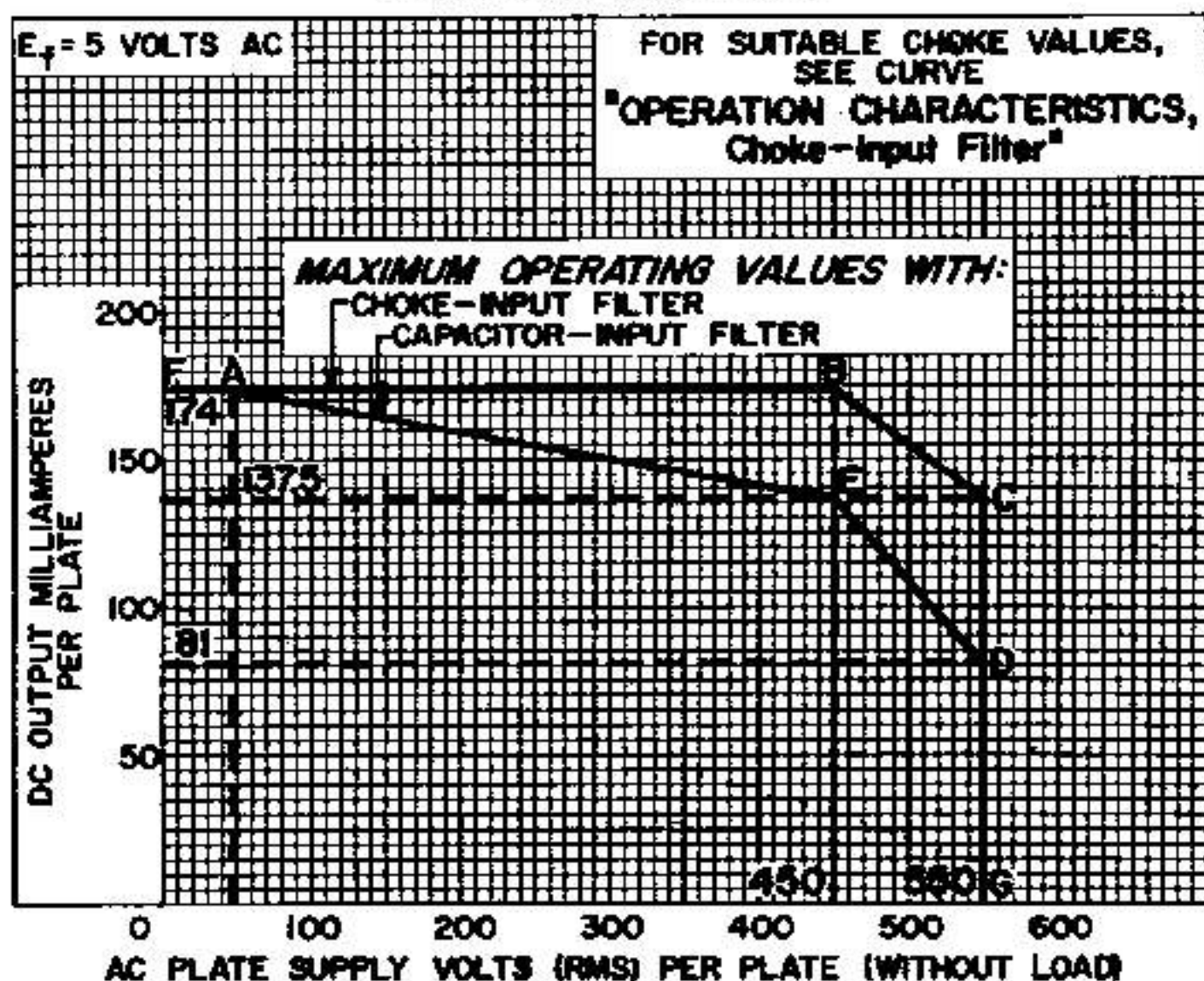
CURRENT- AND VOLTAGE-BOUNDARY LINE 'DEA' IS THE SAME AS SHOWN ON RATING CHART 1



92CM-8446R1

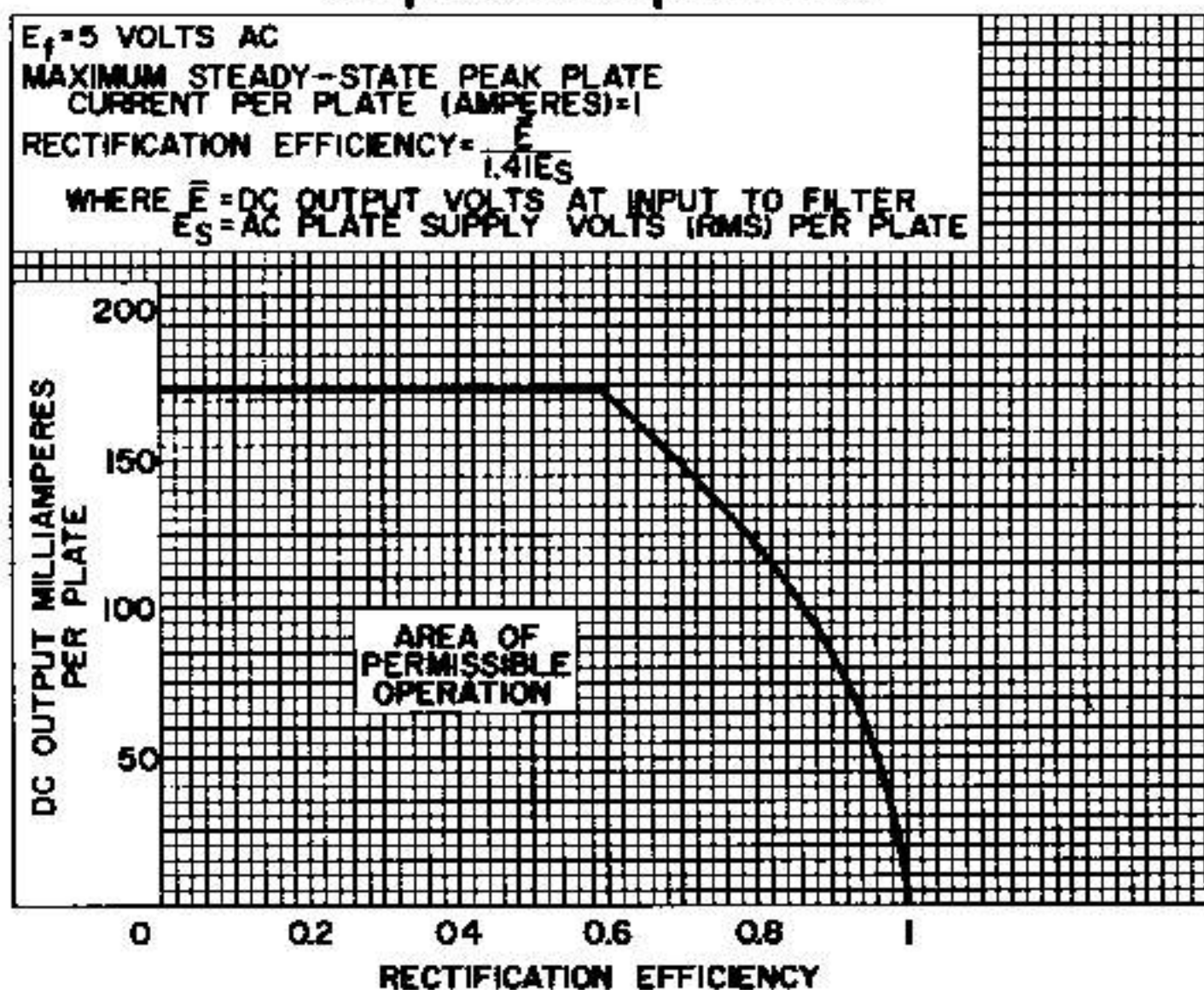


RATING CHART I



92CS-8450R1

RATING CHART II Capacitor-Input Filter



92CS-8451R1



5U4GB

RATING CHART III Capacitor-Input Filter

$E_f = 5$ VOLTS AC

MAXIMUM TRANSIENT PEAK PLATE CURRENT
PER PLATE (AMPERES) = 4.6

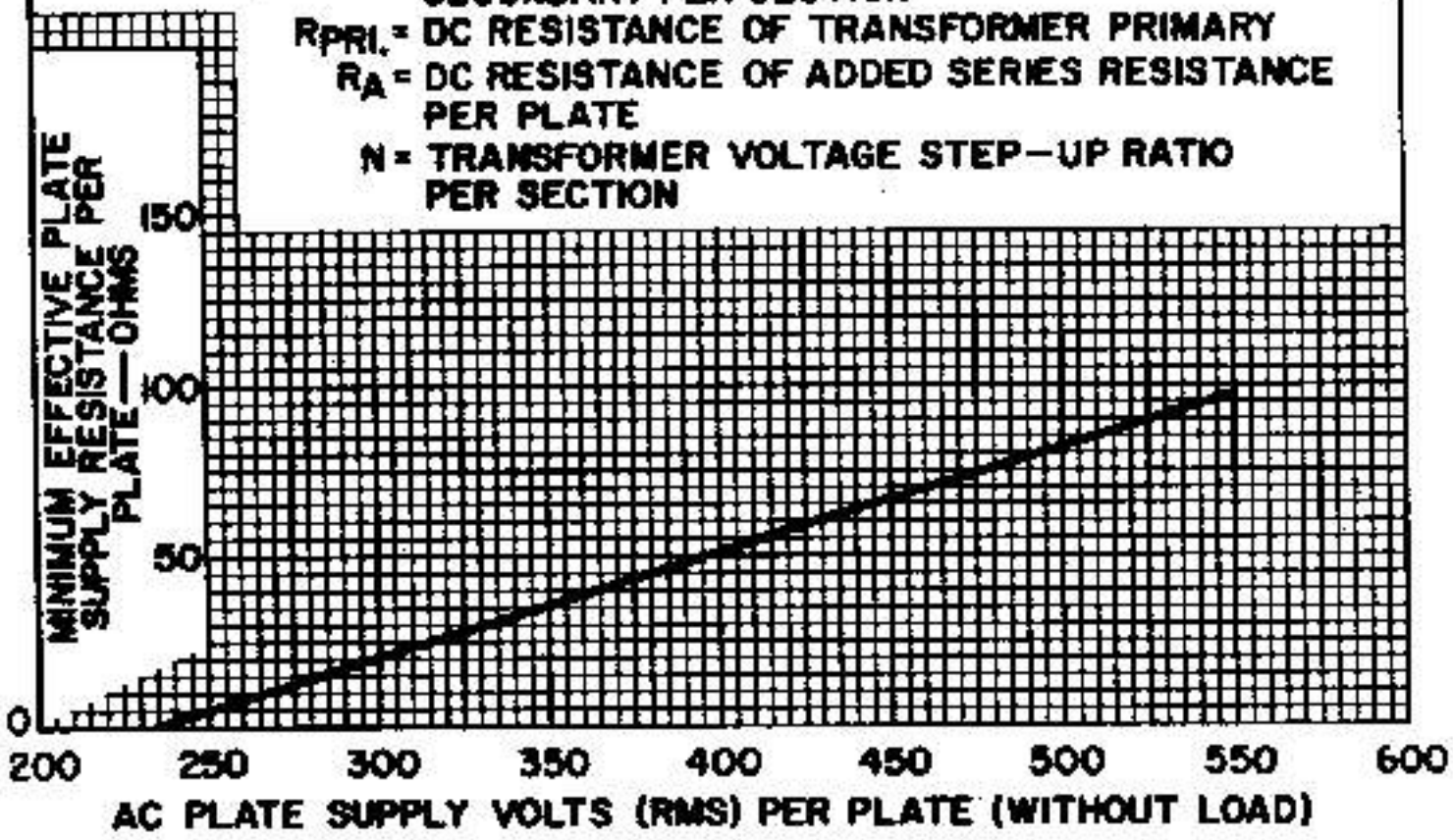
EFFECTIVE PLATE SUPPLY RESISTANCE PER PLATE =
 $R_{SEC.} + N^2 R_{PRI.} + R_A$

WHERE $R_{SEC.}$ = DC RESISTANCE OF TRANSFORMER
SECONDARY PER SECTION

$R_{PRI.}$ = DC RESISTANCE OF TRANSFORMER PRIMARY

R_A = DC RESISTANCE OF ADDED SERIES RESISTANCE
PER PLATE

N = TRANSFORMER VOLTAGE STEP-UP RATIO
PER SECTION



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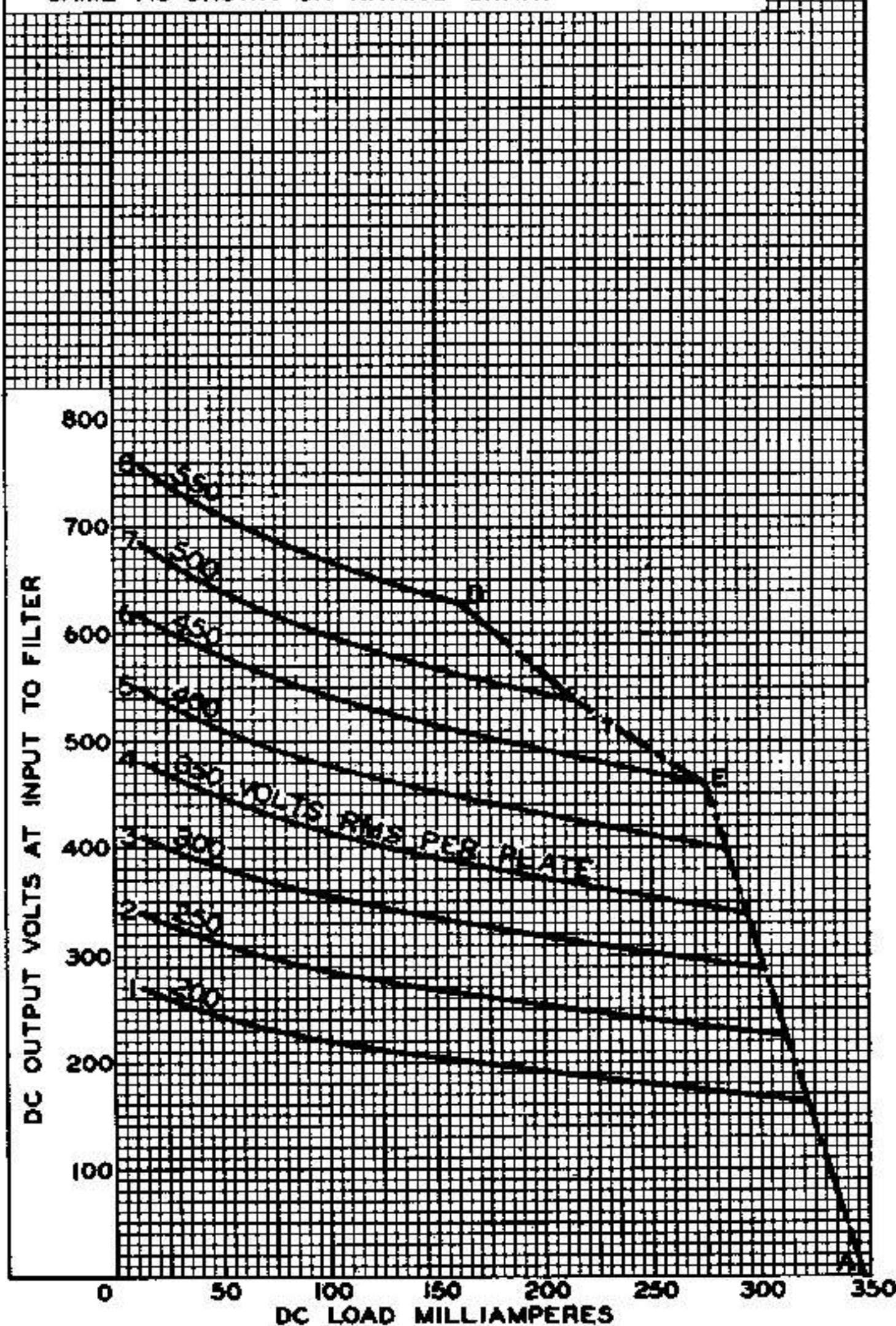
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