

STROMBERG-CARLSON COMPANY

100 CARLSON RD., ROCHESTER 3, N. Y.

ENGINEERING SPECIFICATION

DEPT. SPECIAL PRODUCTS DIV.
SPEC. NO. J-4185
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SUBJECT

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COMPANY CONFIDENTIAL

ASP 422 - DUAL 20 WATT
POWER AMPLIFIER

1. DESCRIPTION
2. ELECTRICAL MEASUREMENTS
3. PRODUCTION TEST LIMITS
4. QUALITY CONTROL TESTS
5. GRAPHS
 - A- FREQUENCY RESPONSE
 - B- HARMONIC DISTORTION VS FREQUENCY

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ASP 422 - DUAL 20 WATT POWER AMPLIFIER

1. DESCRIPTION

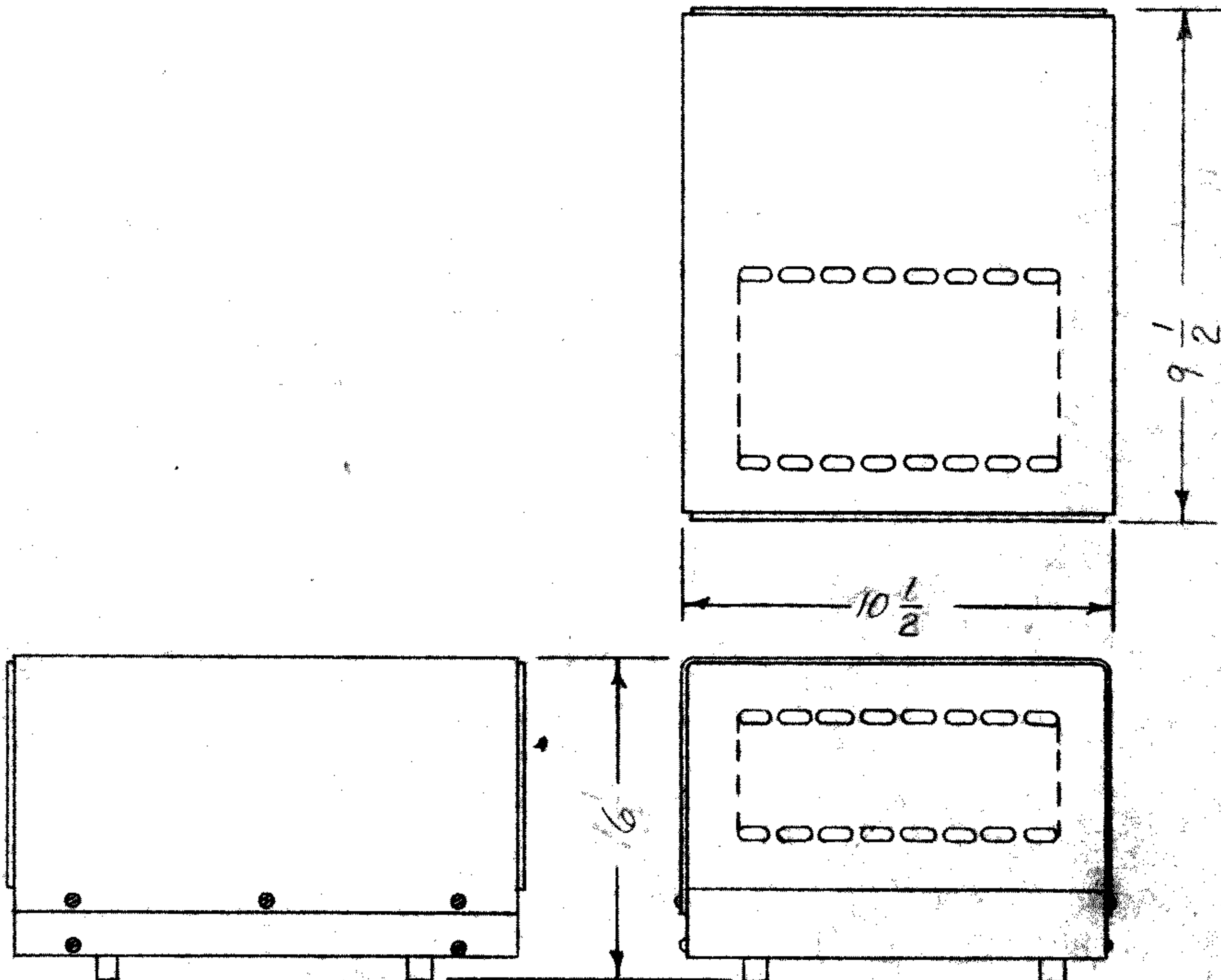
1.1 Part numbers

General Assembly (includes packing) 100001-067
Schematic Diagram S-82061

1.2 Type - Dual 20 Watt Power Amplifier

1.3 Mechanical Dimensions

SKETCH A



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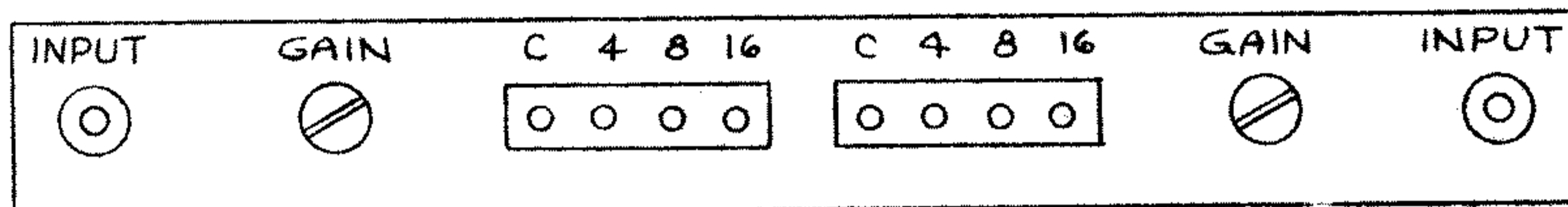
ASH 422 - DUAL 20 WATT POWER AMPLIFIER

1.4 Front Panel and Controls

SKETCH B

CHANNEL A

CHANNEL B



1.4.1 Controls - Two - one for Channel A and one for Channel B

1.4.1.1 Type - Slot for screw driver adjustment

1.4.1.2 Function - Sensitivity, rotate clockwise to increase sensitivity

1.4.2 Output Connections - Two - one for Channel A and one for Channel B.

1.4.2.1 Speaker connections for 4, 8 and 16 ohms.

1.4.3 Inputs - Two - one for Channel A and one for Channel B

1.4.3.1 Input has sensitivity of 1.5 Volt and used primarily for preamplifier output.

1.5 Weight

1.5.1 21 lbs

1.5.2 Packed assembly 23 lbs.

1.6 Power Requirements - 117 V - 60 Cycles - 115 Watts

1.7 Safety - Meets all U/L requirements

1.8 Tube Compliment

2 - 6U8 - Voltage Amplifier and Phase Splitter

2 - 6DY7 - Power Amplifier

1.9 Rectifiers

2 - High voltage Silicon Rectifiers

1 - Low voltage Selenium Rectifiers

1.10 Circuit Breaker

1.8 Amps - Push to Reset.

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ASR-422 - DUAL 20 WATT POWER AMPLIFIER

2. ELECTRICAL MEASUREMENTS

2.1 Sensitivity at 1000 cps for 12 Volts output across 8 ohms = 1.3 Volts

2.2 Distortion at 12 Volts output across 8 ohms.

50 Cycles = 1.8%	1 KC = .9%	10 KC = 1.0%
100 Cycles = 1.0%	5 KC = .99%	20 KC = 1.8%

2.3 IM Distortion - 60 & 7000 Cycles with 1:4 Ratio

The power output is the equivalent single - frequency output

WATTAGE	DISTORTION
20	2%
6.7	1.5%
5.5	1%
3.4	.7%

2.4 Noise level rated from 12 Volts across 8 ohms
70 db - input not terminated
RESIDUAL NOISE: Zero Phons or less

2.5 Stability

No oscillations for any resistive load and up to 1 mfd on a capacitive load.

2.6 Regulation

2.5 db from no load to full load

2.7 Frequency Response

Refer to Figure 1

3. PRODUCTION TEST LIMITS

3.1 Sensitivity at 1000 cps.

1.5 Volts maximum for 12 Volts output across 8 ohms

3.2 Harmonic distortion at 12 Volts across 8 ohms. To be within 1% of Figure 2.

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ASR 422 DUAL 20 WATT POWER AMPLIFIER

3.3 Noise Level

60 db min in reference to 12 Volts across 8 ohms.

3.4 Stability

No oscillation at any condition.

3.5 Regulation at 1000 cps

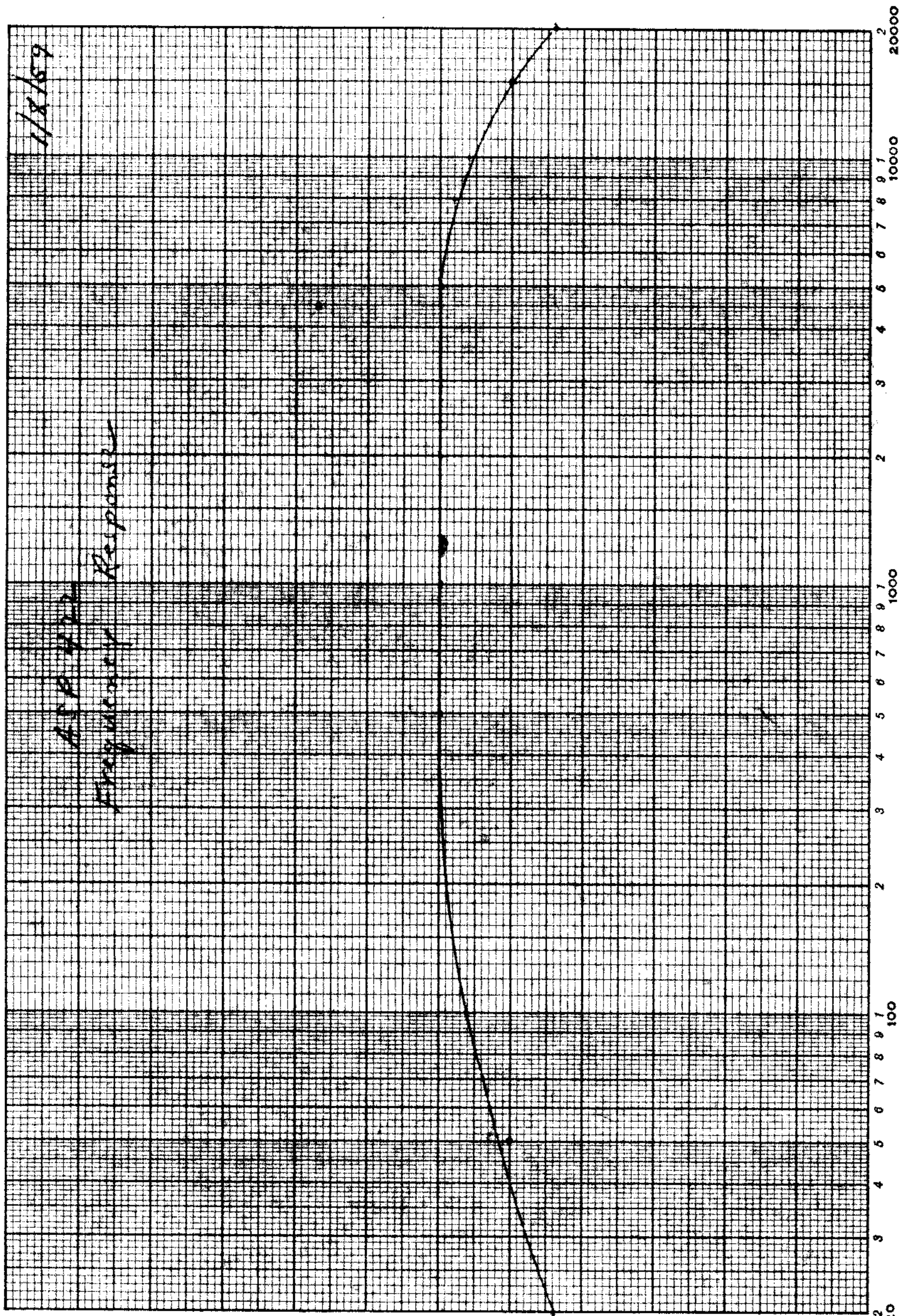
4 db maximum from no load to full load.

3.6 Frequency Response

* 1 db from Figure 1

4. QUALITY CONTROL TESTS

Set shall conform with measurements set up under Production Test Limits. Where not otherwise noted, according to J-3068.



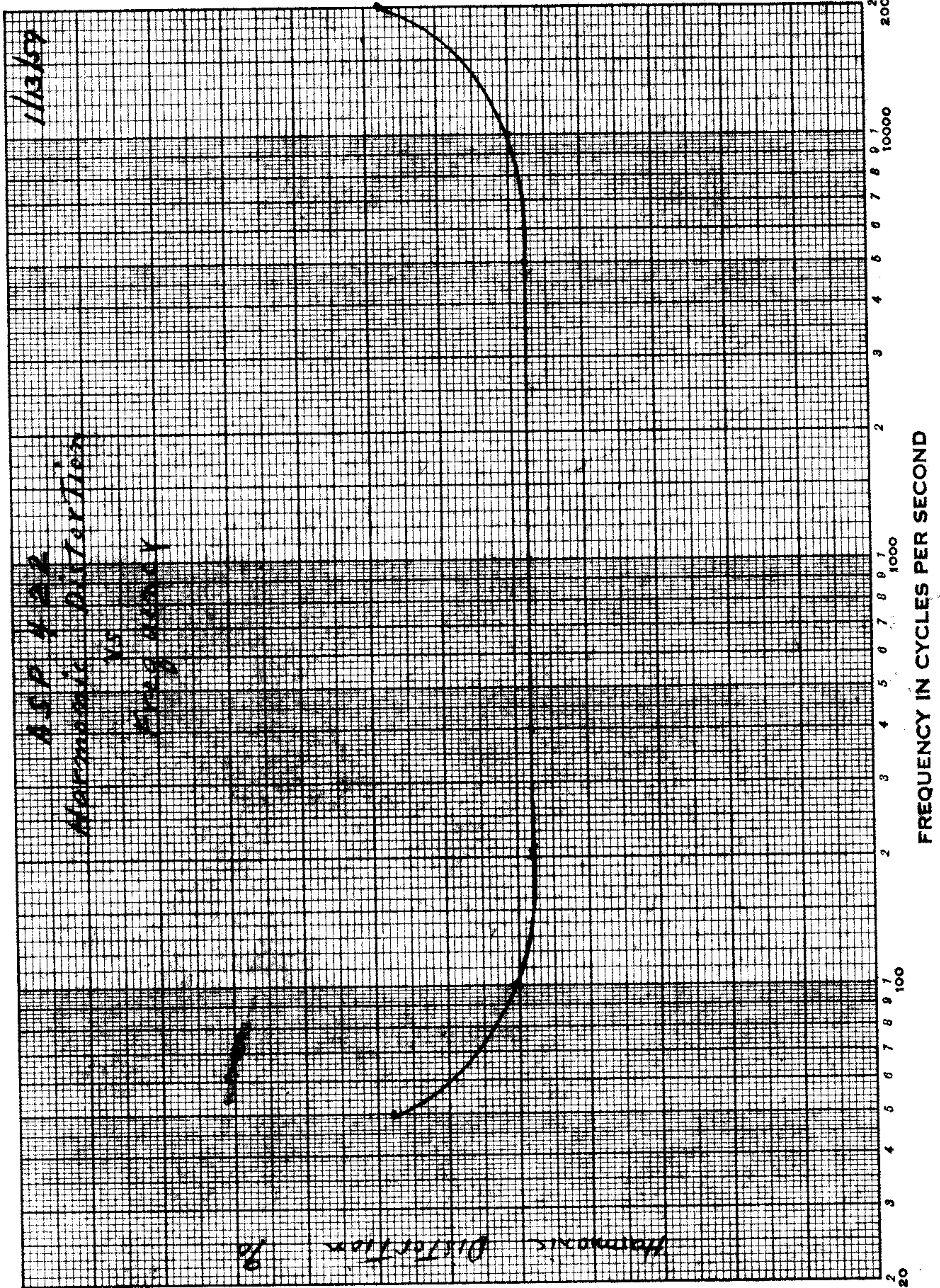
E-1631-A (11-38)

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RESPONSE IN DB

FREQUENCY IN CYCLES PER SECOND

2-9-59



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~~RESPONSE IN DB~~

Harmonic Distortion %