USES
• Drives Vibration Exciter Type 4809
• Drives Mini-Shaker Type 4810 safely to full rating
• General purpose power amplifier specifically designed for small vibration exciters, supplying for example 75 W into a 3 Ω loudspeaker for reverberation measurements

FEATURES
• 75 VA power output capability
• Continuously variable current limit from 1 A to 5 A (RMS)
• 40 dB voltage gain
• Built-in attenuator and continuously variable gain control
• Low distortion over wide frequency range
• Built-in protection against short-circuit and excessive heat sink temperature

Introduction
Power Amplifier Type 2718 has been designed to drive small vibration exciters, particularly Brüel & Kjær Vibration Exciter Type 4809. It can also be used to drive the Mini-Shaker Type 4810 to full rating. For this application, the maximum output current should be limited to 1.8 A.

The power amplifier has a flat frequency response from 10 Hz to 20 kHz (±0.5 dB). The power output capability is 75 VA into a 3 W exciter or resistive load and the maximum voltage gain is 40 dB. This enables the power amplifier to be used in acoustical measurement setups, even when third-octave, narrow-band noise is employed. The use of a transformerless power output stage and high negative feedback results in very low harmonic distortion. A balanced preamplifier and rugged solid-state design results in a stable instrument which can tolerate temperature fluctuations and supply line variations.

Extensive monitoring capabilities include a front panel multifunction display (LCD type) showing output current and output voltage. Also, the front panel encompasses a number of LEDs that light up when the instrument is in the following states: distortion, temperature overload, current overload, stand-by status and power on. Monitoring the output current and voltage can also take place using two BNC connectors on the rear of Type 2718.

Fig. 1 Simplified block diagram of Power Amplifier Type 2718

Description
The input circuitry of Type 2718 includes a continuously variable attenuator for attenuation of the input signal. This is followed by a gain control, in 10 dB steps from 0 to 40 dB, and a pre-amplifier. The preamplifier is capacitive-
Specifications – Power Amplifier Type 2718

***COMPLIANCE WITH STANDARDS***

- Compliance with EMC Directive
- Compliance with EMC Requirements of Australia and New Zealand

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**Safety, EMC Emission and Immunity:**
According to relevant standards:
- Temperature: According to IEC 60068–2–1 and IEC 60068–2–2
- Operating temperature: +5 to +40°C (41 to 104°F)
- Storage temperature: –25 to +70°C (~–13 to 158°F)
- Humidity: According to IEC 60068–2–78, Damp Heat: 90% RH (non-condensing at 40°C (104°F))
- Mechanical: Non-operating according to IEC 60068–2–6, IEC 60068–2–27, IEC 60068–2–29
- Enclosure: According to IEC 60529

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**POWER OUTPUT CAPABILITY**
75 VA into 3Ω exciter or resistive load

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**CURRENT LIMITING**
Continuous adjustment potentiometer
Max. 5 A for Vibration Exciter Type 4809
Max. 1.8 A for Mini-Shaker Type 4810

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**FREQUENCY RESPONSE (20 dB GAIN)**
10 Hz to 20 kHz (± 0.5 dB)

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<table>
<thead>
<tr>
<th>Frequency Range</th>
<th>Gain (± 1 dB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Hz to 40 kHz</td>
<td>± 3 dB</td>
</tr>
</tbody>
</table>

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**HARMONIC DISTORTION**
- > 0.1 % (20 Hz to 10 kHz)
- < 0.2 % (20 Hz to 20 kHz)

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**INPUT IMPEDANCE**
15 kΩ

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**OUTPUT IMPEDANCE**
- < 0.08 Ω (20 Hz to 20 kHz)
- < 0.04 Ω (10 Hz to 5 kHz)

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**HUM AND NOISE FLOOR, UNWEIGHTED**
100 dB below full output (20 Hz to 20 kHz)

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**MAX. VOLTAGE GAIN AT 1 kHz**
40 dB (± 1 dB)

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**AC OUTPUT**
4-pin Neutrik® Speakon® plug, UNF 10 – 32
Microdot plug, current limited to 3 A

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**CONTROLS**
- Power on/off
- Gain control, 0 to –∞ with integral reset
- Amplifier gain, 0, 10, 20, 30 and 40 dB steps
- Current limit, adjustable 1 A to 5 A (RMS)

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**INDICATOR LAMPS (LED)**
- Power on
- Distortion
- Temperature overload
- Current overload
- Stand-by

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**MULTIFUNCTION DISPLAY (LCD)**
- Voltage, RMS, read-out accuracy ± 3 %, Adjustable ± 1 digit, 50 Hz to 20 kHz
- Current, RMS, read-out accuracy ± 3 %, Adjustable ± 1 digit, 50 Hz to 20 kHz

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**POWER REQUIREMENTS**
- Single phase 100, 120 or 230 VAC
- ± 10 %, 50 to 60 Hz, Approx. 140 VA at full load

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**FUSES**
- 100 V or 120 V: T 2.5 A
- 230 V: T 1.25 A

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**DIMENSIONS**
- Height: 2 HE equivalent of 88 mm
- Width: 482.6 mm (19 in)
- Depth: 350 mm (13.8 in)

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**WEIGHT**
11 kg (24.3 lb.)

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**MONITOR OUTPUT**
- Voltage: 0.1 V/V ± 3 %, 2 Hz to 35 kHz
- Current: 0.1 V/A ± 3 %, 2 Hz to 35 kHz

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**Ordering Information**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 2718</td>
<td>Power Amplifier</td>
</tr>
</tbody>
</table>

Includes the following accessories:
- Mains Cable

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**TRADEMARKS**
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**Local representatives and service organisations worldwide**