NAC 32

PREAMPLIFIER SPECIFICATIONS

Input sensitivities	Phono 1 and NA 323, 100uV, 470 ohms. Phono 2, and NA 322, 2mV, 47k ohms. Tuner, Tape 1 and 2, 75mV, 100k ohms.
Output levels and impedances	Tape 75mV, 600 ohms, Main outputs 1V, 47 ohms.
Overload margins	40dB on all inputs at all audio frequencies.
Size	76mm x 205mm x 300mm.

PREAMPLIFIER POWER SUPPLY

The SNAPS has two 24V outputs, one of which supplies the preamplifier, while the other may supply the NAXO crossover. Both outputs are required for the NAC 42XO.

NAIM AUDIO NAXO ELECTRONIC CROSSOVER

This crossover is a 2-way or 3-way 18dB per octave fixed frequency unit. The crossover frequencies are defined by a series of active filters which have been designed with particular regard to their transient handling abilities. The filter frequencies have to be matched to the loudspeaker system with which the unit is going to be used and therefore the NAXO is not available as a separate item.

The Linn Isobarik type PMS is the first speaker system to be equipped with a NAXO crossover unit. Filter frequencies to suit other loudspeaker systems may be computed at extra charge.

The output level is internally adjustable both for frequency and channel balance using enclosed cermet pre-sets. The crossover has delayed switch-on circuitry to ensure thump-free turn-on.

Internally the NAXO 3 consists of a mother board with eight daughter boards, type NAF, interconnected with gold-plated precision connectors. The NAXO 2 uses the same mother board with four NAF boards, and may be converted into a NAXO 3 by changing these as required. Power is supplied from a separate power supply, type SNAPS.

Impedances: input, 20k ohms; output, 47 ohms. Size: 76mm x 205mm x 300mm.

NAC 42XO

The NAC 42 is also available with a built-in 2-way electronic crossover, which is of a similar design to the Naim Audio NAXO electronic crossover. The Linn SARA is the first speaker system to be equipped with the NAC 42XO. The crossover is available as a retro-fit kit.

Power Amplifiers

DESIGN CRITERIA

The purpose of an audio amplifier is to drive loudspeakers without loss of musical information. In our view many commonly accepted parameters have little to do with loss of information and in some instances, such as the pursuit of large bandwidths or low distortion, unqualified acceptance of them can actually lead to the creation of mechanisms that cause loss of information. Dynamic output impedance, open loop bandwidth, slew rate, propagation delay and stability margins are only some of the many other factors to which we attach importance, and which must all be brought into positive balance.

To this end our amplifiers not only achieve low harmonic distortion, low noise and wide power bandwidth, but also have a constant dynamic output impedance over the whole audio bandwidth. They are able to drive reactive loads without any appreciable change in distortion and are not sensitive to the absolute impedance of the load.

FREQUENCY RESPONSE

The frequency response of our amplifiers at the bass end is dependent on the gain decoupling capacitor, and the half power bandwidth extends to below 5Hz. At the top end the response is controlled by a passive single pole filter and is 3dB down at 40kHz. The amplifiers do not slew rate limit within this frequency bandwidth.

PROTECTION

The amplifiers will tolerate any load from 0 ohms to infinity without damage or instability, the output stages being protected by circuitry that measures the power dissipated. Prolonged running conditions of high dissipation will cause the amplifier to become quite warm and should the case temperature exceed 70° C the mains supply will be interrupted until the amplifier has cooled down.

CONSTRUCTION

The cases of the power amplifiers are similar and are constructed of heavy aluminium extrusion which acts as the heatsink. All connections are on the rear. All the amplifiers have large toroidal mains transformers, these and all the other components are secured firmly to an inner chassis. The NAP 250 has four regulated power supplies, each of which is rated at 40 volts and able to deliver more than 10 amps continuously. The NAP 160 has dual rectification, and each channel has its own pair of smoothing capacitors. The NAP 110 uses one diode bridge and one pair of smoothing capacitors.

The NAP 160 and NAP 110 have a built-in 24v regulated supply to power Naim Audio preamplifiers.

High quality components have been used throughout, with great attention to detail construction. Enclosed cermet presets and tantalum capacitors are mounted on epoxy glass printed circuit boards.

NAIM AUDIO BROADCAST & PROFESSIONAL AMPLIFIER

The NAB 300 is intended for use in situations requiring continuous high S.P.L.s. The power output is similar to that of the NAP 250 but in addition it is fan cooled and can be continuously rated into loudspeakers with impedances as low as 2.5 ohms.

The construction of the NAB 300 is designed for the convenience of the professional, and is 3 U. 19 inch rack size. The cannon connectors are recessed on the rear of the amplifier to avoid damage.

The two amplifier channels are completely separate, each one having its own 500 VA transformer, rectifiers, smoothing capacitors and mains fuse.

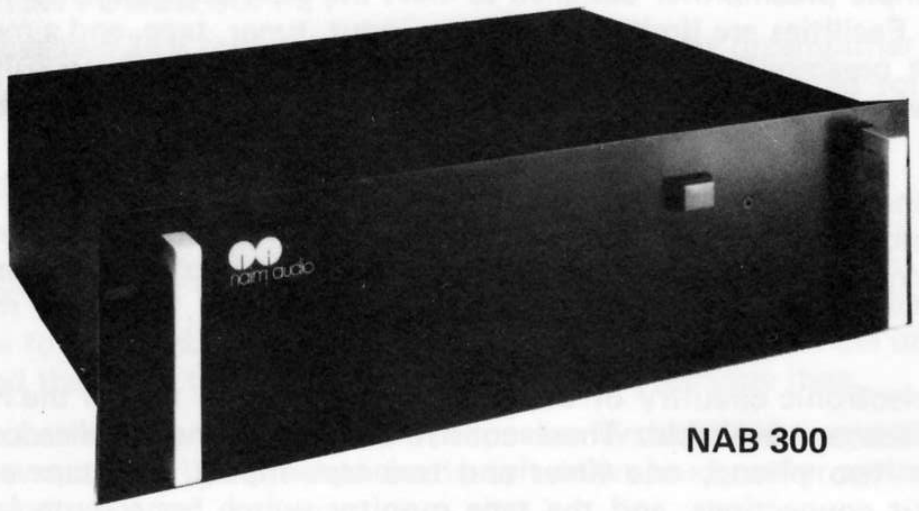
AMPLIFIER SPECIFICATIONS

Power output	Continuous	Transient	Voltage gain
NAP 110	40w into 8 ohms	150 VA	+ 29dB
NAP 160	50w into 8 ohms	250 VA	+ 29dB
NAP 250	70w into 8 ohms	400 VA	+ 29dB

Impedance: 22k ohms, Operating temperature: 0 to 50°C.

Mains supply: 240V or 120V, 50 or 60Hz.

Size: NAP 110, 76mm x 205mm x 300mm. NAP 160 & 250, 76mm x 430mm x 300mm.



NAB 300

LOUDSPEAKER CABLE

Naim Audio's loudspeaker cable type NACA 4 is a multistrand cable consisting of two 4mm sq conductors held parallel to each other by a small web. This cable is suitable for connecting loudspeakers to our amplifiers.

All Naim Audio preamplifiers and amplifiers have a frequency response to within 1 dB between 20Hz and 20 kHz. All distortions of whatever type including noise, at any audio frequency and at rated levels, will remain below one thousandth part of the required signal.

The manufacturer reserves the right to alter specifications without prior notice in accordance with continuing developments.

naim audio

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