

NAD

C270 Stereo Power Amplifier



- **120W x 2 Continuous Power (8 ohms) • 210W, 340W, 450W Dynamic Power into 8, 4 and 2 ohms, respectively • Bridgeable to 300W mono (8 ohms)**
 - **12V trigger input for remote Stand-by/On switching**
 - **Both fixed and variable inputs, switch selectable**
 - **Double set of loudspeaker binding posts to facilitate bi-wiring**
- **Impedance Sensing Circuit (ISC) topology • Toroidal Power transformer**
 - **All discrete circuitry • All sockets Gold plated • Soft Clipping™**

The all-new NAD C270 is part of a new range of amplifiers, which will further enhance NAD's enviable reputation for state of the art products at sensible prices. The key design goals of the new range are PERFORMANCE and RELIABILITY. Both are attained at a very competitive price through efficient innovative design, simple circuitry and meticulous engineering.

"Building Block Concept"

For maximum flexibility, the C270 can operate in bridged mono mode, nearly tripling its single channel stereo mode continuous power rating into 8 ohms. This makes it an ideal choice for a subwoofer amplifier or part of a high powered home theatre or stereo system.

Additional Features

The C270 also incorporates NAD's acclaimed switchable "Soft Clipping" circuit that significantly reduces the risk of damage to loudspeakers due to prolonged high power operation. The technological effort behind the C270 results in a relaxed unstrained musicality, with transparent high frequencies, a deep solid bass foundation and a smooth well-integrated midrange. The output relay protection circuit provides silent switch on and off, together with non-evasive protection against error conditions such as short circuits and overheating. Using the 12V trigger input, the C270 is easily switched On or to Stand-by from remote components featuring 12V trigger outputs. NAD's own C160 preamp sport 12V trigger outputs, for instance. The inclusion of 12V triggers make the C270 an ideal choice for demanding, high quality Custom Install applications. Equipped with two sets of loudspeaker binding posts, adding a second pair of speakers becomes easy. The second set of binding posts will also facilitate "bi-wiring" speakers, a practice popular with demanding audiophiles.

Impedance Sensing Circuit (ISC):

The C270 also benefits from NAD's proprietary Impedance Sensing Circuit (ISC) topology, now well established and used in many NAD models including the highly reviewed C320 and C340. The ISC topology allows the C270 to deliver maximum performance under virtually any circumstance, independent

of the loudspeakers it is driving. The circuitry automatically senses the impedance of the loudspeaker and then adjusts its power supply settings to best cope with that specific load.

With ISC topology, the relationship of voltage to current is kept at an ideal proportion, eliminating the current limiting distortion common in lesser designs. This also gives it an unusual characteristic compared to traditional amplifiers when measuring its continuous output power; the RMS output power remains the same at 120 Watts with either an eight or a four-ohm load. This is not unusual for NAD however.

NAD takes a stance to the mindless "brochure power" approach which doesn't give a realistic indication of an amplifier's true capabilities. Instead, the ISC topology is a practical approach to enable an amplifier to easily deal with musical dynamics and difficult speaker loads. More meaningful in the real world are the C270's dynamic capabilities; up to 450 Watts into 2 ohms and up to 70 amps current capability into 1 ohm!

Design Features

The input and driver stages of the C270 are fed from a separate low-noise, high voltage discrete component regulated power supply, which effectively isolates them from the high current output stage of the amplifier ensuring the lowest possible levels of noise and distortion.

Careful design incorporating sensible grounding results in an amplifier with an exceptionally clean, noise free output signal. Other design features include the generous power supply with a large Toroidal transformer (less mechanical hum and stray magnetic field) and over-specified robust output devices further lead to low noise and low distortion.

The C270 exhibits extraordinarily low levels of distortion at all power levels and under almost any operating condition. Unlike most amplifiers, distortion does not increase at the frequency extremes or even when presented with low impedance loads. What little distortion there is remains the same at 8 ohms or 4 ohms!

PROVISIONAL SPECIFICATIONS - NAD C270

Power Amp Section

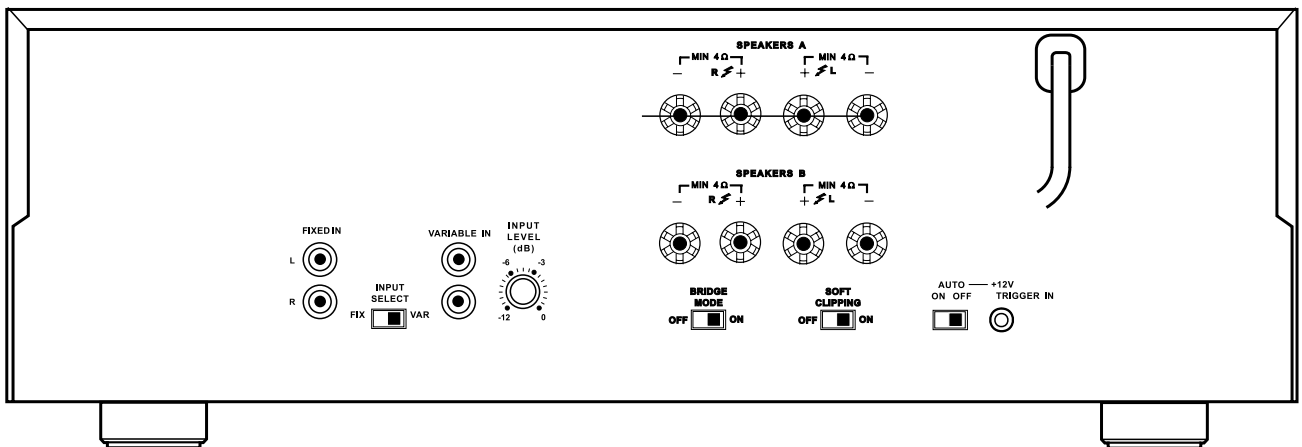
Continuous Average Power Output into 8 Ω (Min. power per channel, 20Hz - 20kHz both channels driven with no more than rated distortion)		120W (20.8dBW)
Rated distortion (THD 20Hz-20kHz)		0.03%
Clipping power (max. continuous power per channel)		140W (21.5dBW)
IHF dynamic headroom at 8 Ω		2.4dB
IHF dynamic power	8 Ω	210W (23.2dBW)
	4 Ω	340W (25.3dBW)
	2 Ω	450W (26.5dBW)
Damping factor	ref. 8 Ω 50Hz	>150
Frequency response	20Hz-20kHz	+/-0.3dB
	3Hz/70kHz	-3dB
Input impedance	R and C	20kΩ / 300pF
Input sensitivity	ref. rated power	1.1V
Voltage gain		x 28.3 (29dB)
Signal/noise ratio	A weighted; ref. 1W	>100dB
	A weighted; ref. rated power	>120dB

Bridged (Monophonic) Mode

Continuous Average Power Output into 8 Ω (20Hz - 20kHz both channels driven with no more than rated distortion)		300W (24.8dBW)
IHF dynamic headroom at 8 Ω		2.2dB
IHF dynamic power	8 Ω	600W (27dBW)
IHF dynamic power	4 Ω	800W (28.5dBW)

Physical Specifications

Dimensions (W x H x D)	17 1/8 x 5 3/16 x 13 13/16" (435 x 132 x 350mm)
Net weight	24.8 lbs (11.2kg)
Shipping weight	31.3 lbs (14.2kg)



NOTE: NAD Electronics International reserves the right to change specifications or features without notice as design improvements are incorporated.

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