



The VDH 500/1000 Professional Power Amplifier

— Discontinued —

A short description of the Van Den Hul 500/1000 amplifier and its main features:

Application Area: This amplifier has been designed bearing professional high power applications in mind. Therefore the amplifier has been made very rugged in many aspects, such as its housing, its power components and its drive capability. The amplifier is mainly intended for 500 up to 1000 Watt peak power applications within uncooled 19" racks or standalone.

High Drive Capacity and Headroom: With regard to its high power applications, the amplifier is capable of driving loads with a resistive part below 1 Ohm, while being able to deliver very high output current peaks (more than 32 Amperes) during short periods of time;

Also the amplifier does not have any problem driving highly complex (reactive) loads, the like that can be found in some esoteric loudspeaker designs that exhibit a very frequency dependent impedance characteristic.

Within a wide angle of load complexity the amplifier does not exhibit any loss of output power while there is no risk of damage to the output stage.

The amplifier has a high headroom available, both in output current and output voltage.

The professional application area of this amplifier also shows when some of its features are being observed:

Inputs and Outputs: The amplifier is 19" rack mountable and stackable and has a rugged steel housing.

The amplifier has been equipped with fully balanced XLR (Canon) inputs, and direct outputs, allowing linkup of multiple amplifiers to one input. RCA type connectors have been included. The loudspeaker outputs have been implemented double for linkup with multiple speakers.

Ground-Lift and Mute: To be compatible with a wide range of grounding schemes and to attack rare grounding / ground-loop problems, the amplifier has been equipped with a ground lift switch.

To prevent possible hum and transients from damaging the loudspeaker when manually (hot) plugging or unplugging the amplifier's inputs, a mute switch is present that must be actuated when changing connections during operation.

Furthermore the amp is equipped with a heavy internal mains filter providing the amplifier additional protection from mains noise and transients.

Extensive Protection Circuitry: The amplifier has been equipped with extensive protection circuitry that correctly starts up and shuts down the amplifier, prevents very low frequency signals from damaging the loudspeaker and that constantly monitors the correct and safe operation conditions of the amplifier's internal functions.

As a unique feature the amplifier has been fitted with circuitry that measures the distortion produced by the amplifier during operation. When a certain distortion threshold is crossed (no matter how short) the warning indicator on front lights and holds the distortion peak for a short period, thus providing indication of possible signal quality degradation due to the amplifier's voltage and/or current drive limitations. With frequent or constant lighting of this indicator it is advised to reduce volume to avoid possible damage to your loudspeaker system.

Shortform Specifications of the Van Den Hul 500/1000 Professional Power Amplifier:

Description:	Very rugged, fully protected rack mountable 1 kW solid state monoblock.
Rated Power Output:	1 kW continuous RMS. into 8 Ohms 640 W continuous RMS. and 2 kW pulsed/transient into 4 Ohms (All ratings when driven from 20 Hz - 20 kHz) With loads less than 4 Ohms continuous operation at high levels ($P_{out_cont} > 160 * R_{load}$) is not recommended.
Peak Output Current:	In excess of 32 Amperes (enabling 1 kW transients into 1 Ohm)
Frequency Response:	1.4 Hz - 160 kHz (-3 dB)
Input Sensitivity:	+ 4 dBm = 1.23 V RMS. for 1 kW into 8 Ohms

Input Impedance:	50 kOhms (both RCA and XLR type inputs)		
S/N Ratio:	> 105 dB "A" weighted (with respect to 1 kW into 8 Ohms)		
Slew Rate:	250 V / Microsecond (both slew directions)		
Damping Factor (Re 8 Ohms):	> 2200 at 10 Hz > 2200 at 100 Hz > 900 at 1 kHz > 100 at 10 kHz		
THD + Noise:	1 kHz into 8 Ohms at	1 W	< 0.05 % (*)
		10 W	< 0.015 % (*)
		100 W	< 0.013 %
800 W		< 0.014 %	
900 W		< 0.02 %	
1 kHz into 4 Ohms at	1 W	< 0.085 % (*)	
	10 W	< 0.023 % (*)	
	100 W	< 0.018 %	
	500 W	< 0.018 %	
(*) : The higher distortion figures at low output powers are due to the amplifier's residual noise; There is no crossover distortion.			
IMD:	< 0.01 % (0 dBW into 8 Ohms with 19 kHz + 20 kHz signal)		
Output Offset Voltage:	< 25 mV		
XLR Balanced Input CMRR:	at 100 Hz > 66 dB at 1 kHz > 86 dB at 20 kHz > 102 dB		
Power Requirements:	105 to 125 Vac, 60 Hz or 210 to 250 Vac, 50 Hz		
Quiescent Power Consumption:	130 Watts		
Dimensions:	19" W by 7" H by 17.9" Dmax (all dimensions according to DIN 41494 19" standard)		
Weight:	66.6 lbs = 30.2 kg. (net)		
	120 lbs = 54.4 kg. (shipping)		

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