

VIOLECTRIC DHA V590

The **DHA V590** is the new top device in the Violectric range. It offers a state-of-the-art D/A converter and a premium headphone amplifier and a sophisticated pre-amplifier. The D/A converter is a new development and includes a 32-bit resampler/reclocker and two 32-bit D/A converters per channel. The latest findings from the multiple test winners from Violectric and Niimbus were implemented in the headphone amplifier.

Most functions can be conveniently controlled using a stylish remote. With its incomparable technology, **DHA V590** not only offers one of the most powerful headphone amplifiers in the market, but also:

- **LOWEST NOISE** through a very small amount of internal gain. This makes the amplifier's self-generated noise inaudible.
- **HIGH OUTPUT VOLTAGE** through 50 V internal operating voltage. Therefore ideally suited for high-impedance headphones deserving high output voltage swing.
- **HIGH OUTPUT POWER** thanks to powerful amplifiers that offer far more power even the most demanding headphones would need. So best suited for headphones with low impedances as well as magnetostatic headphones !!
- **HIGH DAMPING FACTOR** due to lowest output impedance. Therefore the ideal match for difficult to drive headphones without negative side effects and with the guarantee for a uncompromising frequency response.



The **DHA V590** offers:

- Remote control for input selection, resampling, volume, output, mute
- 3 analogue stereo inputs, 2 x unbalanced via RCA, 1 x balanced via XLR
- 4 digital inputs, bal, coax, opto with 24 bit and 192 kHz capability, USB with up to 32 bits and up to 384 kHz for PCM signals, DSD 64 - 512
- 32 Bit Resampling/Reclocking with 180 dB dynamic range, modes: Off / x 1 / x 2 / x 4 / Best
- 2 x 32 bit D/A converters per channel with -112 dB THD+N and 123 dB dynamic range
- +/- 18 dB Pre-Gain for a perfect match of the DHA V590 between source and headphones
- A motorized volume control and a balance control
- 4 powerful amps offering 6400 mW Pmax into 50 Ohm and 21 V RMS into 600 Ohm
- Monitoring of the headphone output in terms of DC and overload
- Headphone path and line-out path individually selectable
- 1 balanced headphone output with 4-pin XLR, 2 single ended outputs with 6,3 mm jack
- Line-out, 1 x unbalanced via RCA, 1 x balanced via XLR
- Adaptation of the line-out signal to the following devices in the range of +/- 18 dB
- 2 toroidal transformers, > 35,000 uF filter capacity

It is on you:

D/A converter? Headphone amplifier? Pre-amplifier? Any combination?

The headphone outputs and/or the line outputs can be activated/deactivated by buttons on the front or by remote control. Connect not only your headphones to the DHA V590 but also your power amplifier or your active speakers and enjoy a compact and fantastic sounding headphone amplifier with a State-of-the-art D/A converter and a premium preamplifier function!



Remote:

Control the DHA V590 with its stylish remote control, milled from a solid piece of aluminum. Via infrared rays you have access to motorized volume control, mute, input selection, resampling settings, Headphone and line-out control.



Technical Data:

All Data RMS unwt'd., 20 Hz - 20 kHz, Pre-Gain set to 0 dB

Analogue input parameter

Inputs (stereo): 1 x XLR female, balanced, 2 x RCA, unbalanced

Max. input voltage: + 21 dBu, Input impedance: 10 kohm

Digital input parameter

Digital PCM inputs: 1 x balanced, 1 x coaxial, 1 x optical, up to 24 bit, 192 kHz

Digital USB input: PCM up to 32 bit, 384 kHz, DSD 64 - 512

Resampling / reclocking: 32 bit, up to 180 dB dynamic range

D/A converters: 32 bit dual-mono, -112 dB THD+N, 120 dB dynamic range

Line out parameter

Line outputs (stereo, analogue): 1 x XLR male, balanced, 1 x RCA unbalanced

Line-Out Gain: -18 / -12 / -6 / 0 / +6 / +12 / +18 dB

Max. output voltage: + 21 dBu, Output impedance : 1 Ohm

Headphone amp parameter

Nominal input sensitivity: +6 dBu

Feedback gain: 0 dB unbal / +6 dB bal

PRE-GAIN: -18 / -12 / -6 / 0 / +6 / +12 / +18 dB

Frequency range: 5 Hz ... 250 kHz (- 0,5 dB)

Balance: +/- 6 dB

Output impedance: 0,15 Ohm unbal / 0,3 Ohm bal

Damping factor (Load 50 Ohm): 320 unbal / 160 bal

Dynamic range: > 131 dB (A-wtd)

Noise: < -103 dBu (A-wtd)

THD+N (1kHz/2x10V/100R = 1W) : < -102 dB / < 0,0008 %

THD+N (1kHz/2x4V/32R = 0,5W) : < -100 dB / < 0.001 %

Crosstalk: -105 dB (1 kHz) / -100 dB (15 kHz)

Headphone outputs: 1 x 4-pin XLR, 2 x 1/4" (6.3 mm) jack

General

Supply voltage: 230 V AC / 115 V AC max. 50 VA

Front, Back: 8 mm / 3 mm Aluminum, black anodized

Case: 3 mm / 4 mm Aluminum, black anodized

Case dimensions: 290 x 80 x 248 mm (W x H x D)

Overall dimensions: 290 x 90 x 275 mm (W x H x D)

Headphone output (both channels driven)			
R _L (Ohm)	P _L (mW)	U _A (V)	U _A (dB)
600	740	21,1	28,7
300	1450	20,9	28,6
100	4300	20,7	28,5
50	6400	17,9	27,3
32	4700	12,3	24,0
16	2000	5,7	17,3