



Champ - One Power Amplifier

APart



Champ - One realizes what many in the audio industry deemed impossible: an amplifier without cooling fans that is capable of delivering high-end musical sound, high dynamics, high reliability.

No fan

Power amplifiers have to operate in demanding circumstances. Places where the air is full of dust, nicotine or grease. Because power generates heat, power amplifiers typically have fans to keep their electronic circuits cool.

Unfortunately, these cooling fans are a major headache in the use of high-power amplifiers. They tend to be noisy, and if -or rather, when- the fan breaks down because of dust collection, the amplifier overheats and ultimately fails.

A fanless amplifier seems the logical thing, but -until now-, the idea never seemed to work for high quality amps with high output power. The electronics of a typical class AB amplifier with high output power simply produce more heat than the unit is able to dissipate. Thus, installers stick to fan-cooled models and get out of bed to replace a fried amplifier

Unique heat sinks

Especially for Champ - One APart introduces the unique, custom-designed side mount heat sinks. In combination with a self-supporting low resonance frame, they make it possible to create a discrete high power amplifier without a noisy and dust-collecting fan inside the enclosure.

This means: less maintenance, no annual fan or dust filter exchange procedure, no more amplifier cleanout, and no more unwanted noise from cooling fans. Champ ONE uses a clever class GH topology which has about 30% better efficiency compared with a class AB amplifier. Because of this, Champ ONE can rely on convection cooling only, a unique feature in its output power class!



APC power management circuitry gets the best out of an amplifier

APC power management circuitry has been designed especially for Champ-One. It is one of the most intelligent amplifier protection circuits ever designed, simply because it does the job without interfering with the typical dynamic character of music.

APC allows the user to preset the power potential of the amplifier, while maintaining high power reserves and thus producing high, clean power. It constantly analyses incoming music signals and keeps dynamics alive. An additional ultra fast peak limiter avoids amplifier clipping. With APC, your system is always in control, including your speakers.

All the components in Champ - One are audiophile grade quality. Thanks to the tube emulation circuitry, the unit produces an exceptionally warm sound, which considerably reduces listeners' fatigue.

The striking design and technical innovations of the Champ - One are setting new industry standards....whether it is for AV, studio, gigs, home or catering applications: experience the pure musical power of Champ-One!

TECHNICAL SPECIFICATIONS

Dynamic program power, both channels driven

| | |
|-----------------------------|-------------|
| Bridge-mono operation 8 ohm | 1100 W |
| 2 channel mode 8 ohm | 400 W / ch |
| 2 channel mode 4 ohm | 600 W / ch |
| 2 channel mode 2 ohm | not allowed |

Dynamic program power is measured with a dynamic input signal like music or noise. The maximum output voltage measured with given load is calculated back to power. This number means that one needs an amplifier of this power to have the same output swing. Please refer to the technical document [Power Rating Champ-One](#) in case of questions.

SINE WAVE POWER, BOTH CHANNELS DRIVEN (please refer to the technical document [Power Rating Champ-One](#) for more information)

| | |
|-----------------------------|------------|
| Bridge-mono operation 8 ohm | 900 W |
| 2 channel mode 8 ohm | 300 W / ch |
| 2 channel mode 4 ohm | 450 W / ch |

This amplifier is designed for an audiophile music experience, not for lab testing ! Care should be taken when sine wave signals are used during test. If you planning to do some measurements, reading the technical document [Power Rating Champ-One](#) is mandatory.



TECHNICAL SPECIFICATIONS

GENERAL TECHNICAL SPECIFICATIONS

| | |
|--|---|
| Input impedance / sensitivity unbalanced (RCA) / 4 ohm | 10 Kohm / 1 V 0dBV |
| Input impedance / sensitivity balanced (XLR) / 4 ohm | 20 Kohm / 1 V 0 dBV |
| Frequency response (0, -0.5 dB) | 10 Hz - 50 kHz |
| THD | < 0.05 % |
| IMD | < 0.08 % |
| Noise | >100 dBA |
| Gain | 33 dB (39 dB bridged) |
| Damping factor "Solid" | >100 at binding posts |
| Damping factor "Tube" | >10 at binding posts |
| Dynamics and level control | APC, programmable |
| Power amp circuit design | High current, high voltage class G-H |
| Efficiency (dynamic program of 10 dB, 1 V input) | >70 % |
| Protection circuits | DC, HF, clip, overcurrent, short-circuit |
| Temperature protection | 2 step / channel + transformer 105°C |
| Cooling | convectonal, no fan |
| Power consumption | 18VA idle, 1KVA full program, 1.5KVA peak |
| Mains power requirements | 230VAC, 50Hz |

PHYSICAL SPECIFICATIONS

| | |
|-----------------------------------|-----------------|
| Net dimensions (cm) (W x H x D) | 48.3 x 8.8 x 38 |
| Gross dimensions (cm) (W x H x D) | 57 x 14 x 55 |
| Net weight | 13 kg |
| Gross weight | 19 kg |