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# CS3



## CS3, INTEGRATED STEREO POWER AMPLIFIER

B.M.C.'s CS3 is a Load Effect Free (LEF) integrated amplifier with an upgrade option to an LEF stereo power amplifier. The crucial secret of the CS3's sound is that it avoids distortion instead of compensating for it with a negative feedback loop.

The CS3 is a power amplifier without a preamplifier for a short, pure signal path. It features a volume control that uses our exclusive Discrete Intelligent Gain Management (DIGM) system and an input selector. The lossless DIGM volume adjustment eliminates unnecessary signal attenuation at the input, as well as unnecessary high-level amplification.

Included is a massive aluminum remote control for your convenience -- a statement of the CS3's build quality in your hand.

Combining the CS3 with a B.M.C. digital-to-analog converter (DAC) transforms it into a LEF stereo power amplifier that offers DIGM gain adjustment set by the DAC's volume control. In addition, B.M.C.'s balanced Current Injection (CI) input enhances the immediacy of reproduced music by processing the signal current of the source until it reaches the speaker's output voltage. B.M.C.'s LEF output stage avoids distortion before it occurs by relieving the sound-critical LEF single-ended class-A transistor of all duties other than providing perfect signal reproduction.

Unlike other amplifiers, an LEF amplifier handles a speaker's current demands separately from the voltage demands. The result is an unparalleled mastery of musical complexity that brings to startling life delicate details, rock-shaking power, great dynamics, sonic vitality, and accurate imaging -- all on a three-dimensional soundstage.

Load Effect Free amplification is a new experience that must be heard to be fully appreciated.

The CS3 also boasts of solid output power: 200 watts per channel into 8 ohms and 350 watts per channel into 4  $\Omega$ .

An electronically stabilized power supply with a 2kW toroidal transformer and balanced current capacitors provide the muscle behind the music.





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## LEF AMPLIFIER

An innovative low-distortion amplifier circuit without overall negative feedback loop.

A new circuit solves distortion problems by removing their cause, instead of trying to correct distortion afterwards. Therefore a negative feedback loop is obsolete with all its unwanted "contributions" to the music reproduction. This revolutionary circuit we call LEF, Load Effect Free, because the music signal voltage source, which determines the sound quality, is freed from voltage and current swings, so it perfectly delivers the music signal to the speakers.

The significant, relatively small voltage-source transistors just care about the music signal, but never deliver any power. Everything related to power is handled by separate external circuits, and the unloading of power from the signal-voltage source removes the cause of distortion.

The LEF amplifier delivers signal voltage and current from separate, phase-independent sources. Besides avoiding distortions, this also delivers superior control of the speaker.

And compression effects never occur, so you can enjoy complex orchestral tutti or passionate sopranos in effortless and natural sound.

This is the basic working principle of **LEF = Load effect free.**

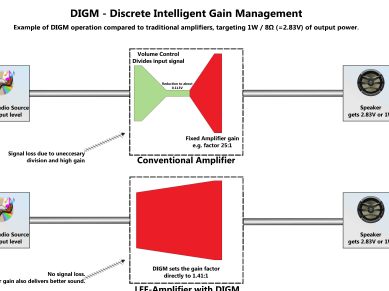
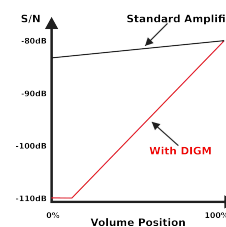


## DIGM VOLUME CONTROL

DIGM (Discrete Intelligent Gain Management) replaces a traditional lossy volume control in an audio system, delivering significantly better performance. Gain control instead of signal waste!

The source signal does not get divided but instead is fully used, avoiding the usual degradation. Instead, DIGM controls the amplification factor (gain) in a way that just the gain needed for the selected volume is applied. Because after the DIGM there is no further gain stage the output noise is reduced proportionally with the volume level.

You experience more quietness.



## POWER SUPPLY CONCEPT

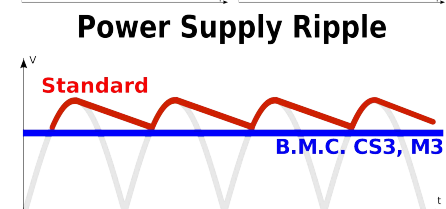
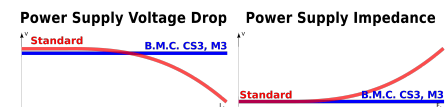
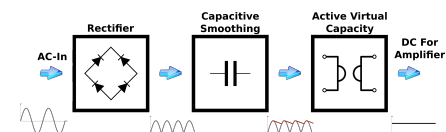
The requirements can be summarized as follows:

- Low noise and low ripple on the DC power
- No voltage drop under load
- Low impedance
- Linear impedance vs. frequency

A 2 kW toroidal transformer is the solid base for a very powerful, dynamic and stable energy supply. Extraordinary musical expansion and transparency are accomplished by storage in a whole battery of custom-made balanced-current capacitors.

## THE ACTIVE VIRTUAL CAPACITY

The CS3 in addition features a giant virtual capacitor which has been realized with extremely powerful MOSFET.



SPECIFICATIONS	
Output Power	2 x 200 W / 8 Ω, 2 x 350 W / 4 Ω
Frequency Response 20Hz – 20kHz, 1W	-0.08dB
Bandwidth 1W / -3dB	2Hz – 180kHz
S/N at DIGM 57 (relative to Pmax)	110dB
S/N at DIGM 40 (relative to Pmax)	125dB
S/N at DIGM 40 (relative to 1W)	103dB
THD+N at 1 Watt, 1kHz	0.01%
THD+N from 50mW to 50W, 1kHz	under 0.02%
THD+N under 0.1%	from 0.3 mW to 150 Watt
Damping Factor (8 Ω, 10W)	250
Inputs	2 x bal. XLR, 3 x RCA
Input Impedance	50 kΩ RCA, 100 kΩ diff. XLR
Input Sensitivity	Max. 750 mV/RCA, 1.5 V/XLR
Volume Adjustment	DIGM in 66 in 1dB increments
Speaker Output	1 Stereo-Pair binding posts
AC Voltage (fixed by country)	AC 100V, 115V or 230V, 50/60 Hz
Power Consumption	110W – 800W
Dimensions Enclosure (W x D x H)	435 x 405 x 138 mm
Dimensions incl. Legs, Knobs and Terminals	435 x 450 x 150 mm
Weight	40 kg

Note: Technical specifications and design are subject to change without notification. All specifications without warranty.



## MY-HiEND

Best Value Award

最超值獎

Amplifier



CS2

December, 2013