

# PCM series

Class I™ SMPS Power Amplifier

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The PCM series of power amplifiers represents SAE Audio flagship series on the 2-channel SMPS power amplifier range. Featuring the most advanced technologies on audio power amplification developed by SAE Audio Research and Development laboratories during more than 15 years, the PCM amplifiers are able to deliver an enormous power density (4600W per channel @ 2Ω with the highest power PCM20) with an unprecedented sonic quality from a very lightweight 2rack-unit amplifier. This great performance and extreme efficiency, achieved through its advanced Regulated SMPS power supply and SAE Audio patented Class I™ power modules, turns the PCM amplifier series in the industry standard for world class pro-touring sound reinforcement applications.

## Technology

### Class I™

SAE Audio patented Class I™ is the most advanced technology on high power audio amplification. The output signal amplified through a Class I™ power module accurately tracks the input signal waveform, achieving a much greater efficiency and sonic quality than on other standard amplifier classes. Class I™ amplification is capable to deliver extremely high power density with an unprecedented audio fidelity.

### R-SMPS

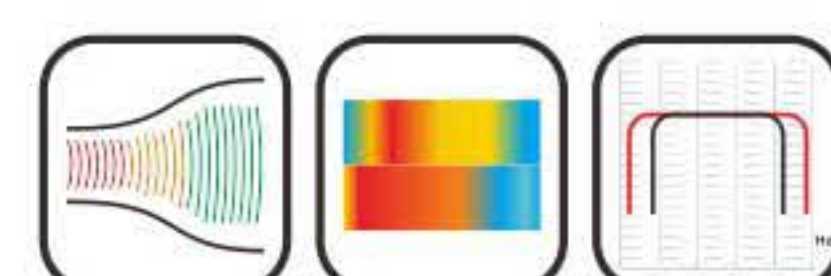
Too often, on several sound reinforcement applications, mains voltage fluctuations due to poorly designed power distribution networks or non-stable power generators are an inconvenient for sound reinforcement equipment performance. In the case of amplifiers it causes undesired output sound level variations according to the mains input power. The PCM series of power amplifiers feature a Regulated Switching Mode Power Supply to keep a stable output signal level disregarding the mains stability. With the R-SMPS power supply a good sound performance is guaranteed even with the less convenient power conditions.

### HS-CMRR Balanced Inputs

The best signal quality at an amplifier output can only be achieved with the best signal quality at its input. With the PCM series is not a problem to have long signal input cables along with power lines or other induced noise sources. The balanced signal inputs on the PCM amplifiers implement a High Sensitivity CMRR (Common Mode Rejection Ratio) design in order to reject even the slightest added distortion on the signal, thus assuring the best possible audio signal at the input.

### Top Electronic Elements

Being the 2-channel SMPS flagship series of SAE Audio power amplifiers the PCM series solely mount the best premium quality audio-specific electronic elements with the highest proven durability available on the market. Any sound performance influential parts inside the PCM amplifiers, including the operational amplifiers, power supply capacitors or power module bipolar junction transistors, are thoroughly selected among the best available audio-specific components in order to reach the best possible audio quality.



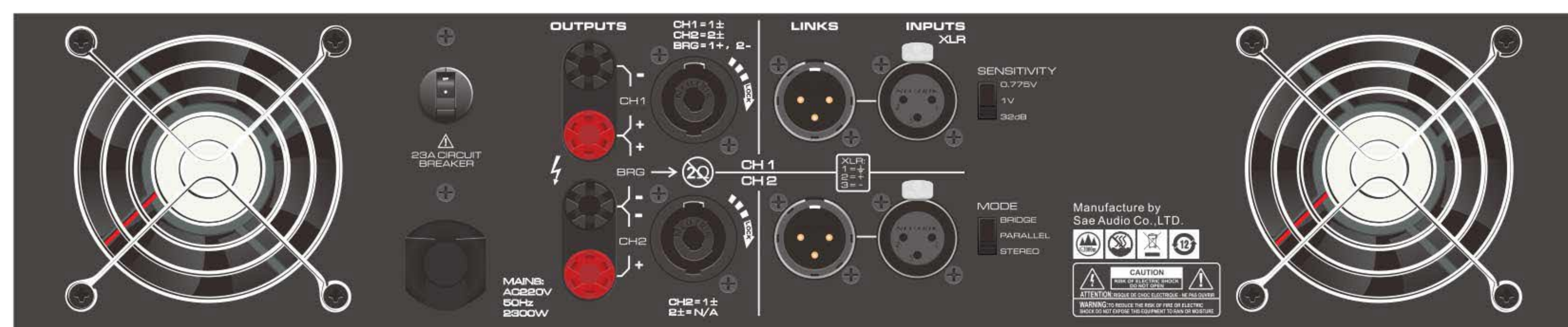
## Features

- SAE Audio renowned Regulated SMPS power supply unit.
- High efficiency Class I™ power modules.
- Highly sensitive CMRR balanced inputs for improved noise rejection.
- Top electronic elements for a superior sonic quality.
- Maximum stability even at continuous full-power on 2Ω loads.
- XLR input and signal link connectors.
- Neutrik SpeakON NL4 and binding post output connectors.
- Input sensitivity selector on the back panel (32dB / 1v / 0.775v).
- Routing mode selector on the back panel (stereo / bridge-parallel).
- Mains circuit-breaker on the back panel.

- Channel independent temperature, protection and clip warning indicators on the front panel.
- Channel independent power and -5dB/-10dB/-20dB/signal presence indicators on the front panel.
- Parallel and bridge indicator on the back panel.

## Applications

- Mid and big world-class pro-touring applications.
- Mid and big sized clubs and installations with high power density requirements.
- Professional rental industry.

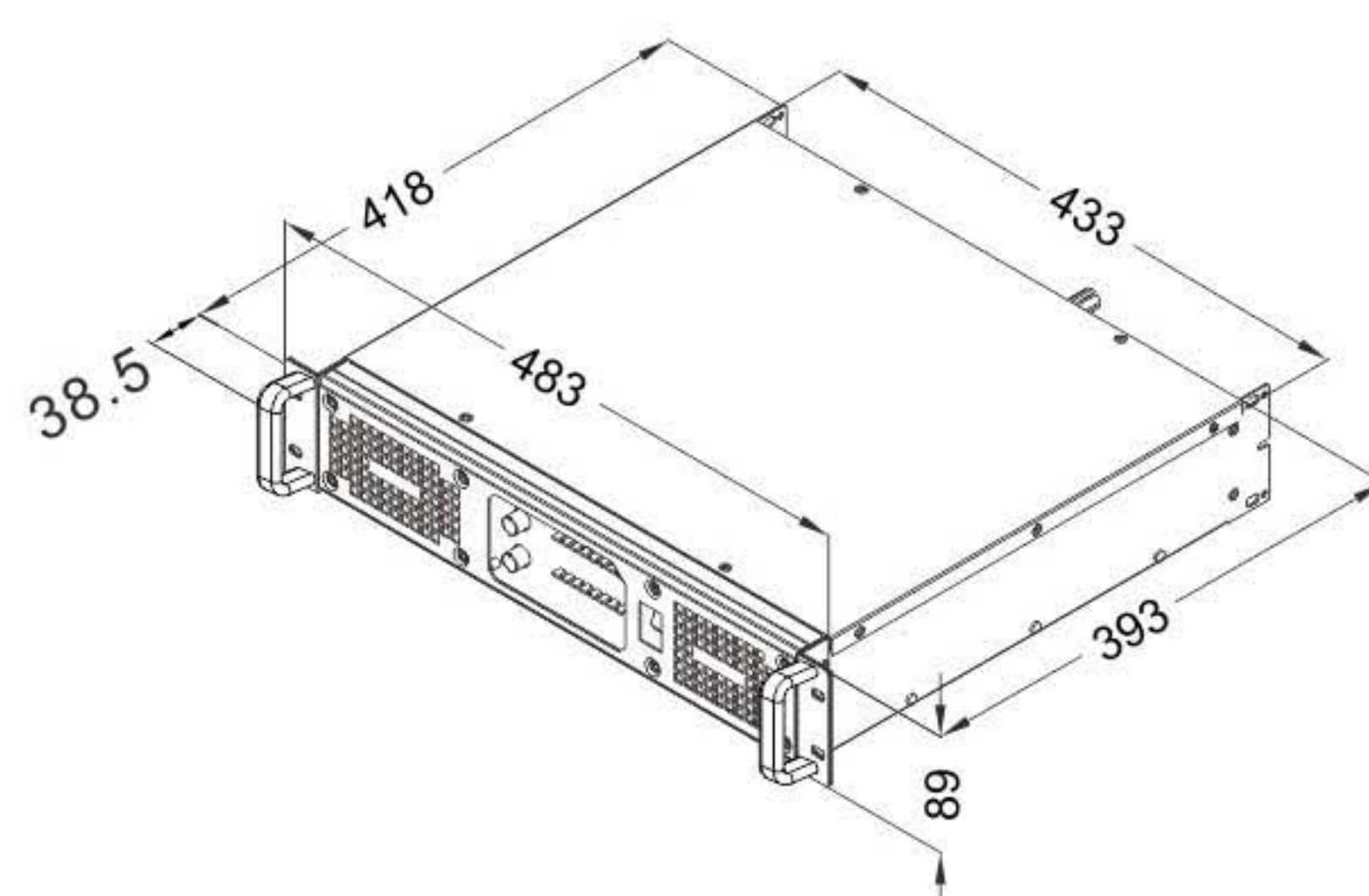


PCM13 rear panel

## Specifications

Model	PCM7	PCM13	PCM20
<b>Output power</b> (AC 220V / 50Hz. ±10%, All channels driven output power, THD=1%)			
8Ω Stereo*	700W x2	1300W x2	2000W x2
4Ω Stereo**	1200W x2	2000W x2	3500W x2
2Ω Stereo**	1600W x2	2800W x2	4600W x2
8Ω Bridge**	2400W	4000W	7000W
4Ω Bridge**	3000W	5400W	7800W
<b>Other specification</b>			
Frequency response	20Hz - 20kHz (+0/-0.5dB)		20Hz - 20kHz (+0/-1dB)
Phase response	≤30°(20Hz - 20kHz)	≤30°(20Hz - 20kHz)	≤100°(20Hz - 20kHz)
THD+N	< 0.05%		
S/N rate	≥ 85dB		
Damping factor	> 280		
Input sensitivity	0.775v / 1v / 32dB		
Input impedance (bal/unbal)	20kΩ / 10kΩ		
Voltage gain	39.7dB	42.4dB	44.2dB
Cooling	Air flow from front to rear		
<b>Dimension / Weight</b>			
Product dimensions (mm)	483 x 456.5 x 89	483 x 456.5 x 89	483 x 456.5 x 89
Packaging Dimension(mm)	595 x 565 x 170	595 x 565 x 170	595 x 565 x 170
G.W.	14.5kg	15.1kg	15.5kg

### Product dimension(mm)



Suitable model: PCM7 / PCM13 / PCM20

Remark : 1. \*Power tested under EIA standard.  
2. \*\*Power tested under the condition of 40ms burst, 1KHz sine wave and 1% THD.  
3. SAE reserves the right to make any changes to the product specifications without prior notice. Final specifications to be found in the user manual. .