

Class I™ SMPS 4 Channels Power Amplifier ➤ PQM series



The PQM series of power amplifiers represents SAE Audio flagship series on the 4-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 PQM amplifiers are able to deliver an enormous power density (2500W per channel @ 2Ω with the highest power model PQM13) with an unprecedented sonic quality from a very lightweight 2 rack-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 PQM amplifier series in the 4-channel industry standard for world-class pro-touring sound reinforcement applications.

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 with continuous full-power on 2Ω loads.
- XLR input and signal link connectors.
- SpeakON NL4 and binding post output connectors.
- Input sensitivity selector on the back panel (26dB / 28dB / 32dB / 1.4v / 1v / 0.775v).
- Routing mode selector on the back panel (stereo / bridge-parallel).
- Channel independent temperature, protection, VHF and clip warning indicators on the front panel.
- Channel independent -5dB/-10dB/-15dB/-20dB/signal presence and mute indicators on the front panel.
- Power and bridge/parallel indicators on the front panel.
- Low unit weight (16kg on the highest power model PQM13).

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 PQM 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.

Applications

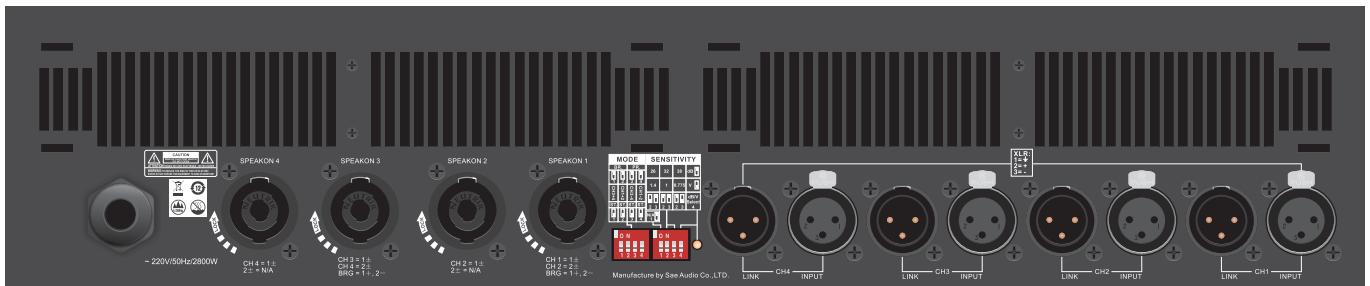
- Mid and big world-class pro-touring applications.
- Mid and big sized clubs and installations with high power density requirements.
- Multi-way speakers power amplification.
- Line array and big sized systems power amplification.
- Professional rental industry.

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 PQM 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 PQM 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

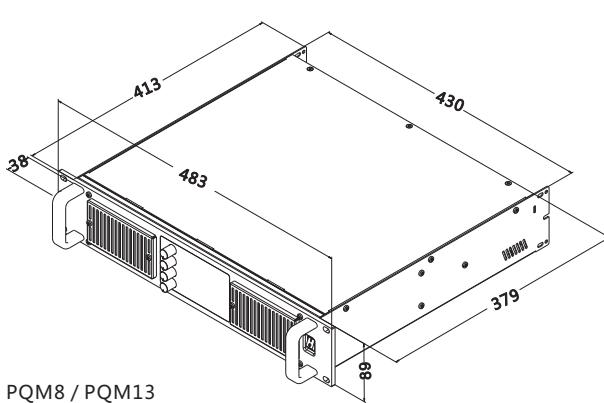
Being the 4-channel SMPS flagship series of SAE Audio power amplifiers the PQM series solely mount the best premium quality audio-specific electronic elements with the highest proven durability available on the market. Any sound performance influential parts inside the PQM amplifiers, including the operational 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.



PQM rear panel

Specifications

Model	PQM8	PQM13
Output power (AC 220v / 50Hz. ±10%, All channels driven output power, THD=1%)		
8Ω Stereo*	800W x4	1300W x4
4Ω Stereo**	1400W x4	2100W x4
2Ω Stereo**	1600W x4	2500W x4
8Ω Bridge**	2800W x2	4200W x2
4Ω Bridge**	3200W x2	5000W x2
Other specification		
Frequency response	20Hz - 20kHz , +0/-1.5dB	
THD+N	≤ 0.05%	
S/N rate	≥ 80dB	
Damping factor	≥ 800	
Input sensitivity	0.775v / 1v / 1.4v / 38dB / 32dB / 26dB	
Input impedance (bal/unbal)	20kΩ / 10kΩ	
Voltage gain	40.3dB	42.3dB
Cooling	Air flow from front to rear	
Dimension / Weight		
Product dimensions (mm)	483 x 451 x 89	
Packing dimensions (mm)	595 x 565 x 170	
G.W.	15.5kg	15.7kg
Dimension (mm)		



*Power tested under the condition of 40ms burst, 1KHz sine wave and 1% THD. **Power tested under the condition of 20ms burst, 1KHz sine wave and 1% THD.
SAE reserves the right to make any changes to the product specifications without prior notice. Final specifications to be found in the user manual.