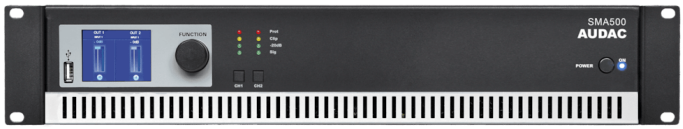
SMA500

WaveDynamics™ dual-channel power amplifier 2 x 500W

Highlights:

- Lightweight class-D amplifier
- Speakon compatible & terminal block output connections
- RS232 control
- Dante™/AES67 expansion port
- XLR & terminal block input & linkthrough connections
- Advanced DSP and loudspeaker management
- 2.5" LCD display with intuitive user interface
- WaveDynamics™ speaker & set configurations





Certification:

Dante
Dante Domain manager

Additional Inputs:

USB
RS232

Product information:

The SMA series are dual channel (stereo) power amplifiers providing a new standard for affordable audio amplification in both fixed and mobile audio installations. Their advanced features and availability in different output powers for 350 Watt, 500 Watt and 750 Watt provide an enormous flexibility for numerous applications. The WaveDynamics™ DSP processor in combination with the 2.5” LCD display gives an unmatched user experience with intuitive functions overview for easy configuration. Acoustics can be optimized using Butterworth, Bessel and Linkwitz-Riley filters with selectable rolloff which can be configured as Low / High & Band Pass and the 7-Band equalizer which has adjustable frequencies and Q-factor. Other provided functions are delay and dynamic bass boost. These settings can be custom configured using the front panel of the amplifier, whereby access can be given on two different levels (User & Administrator) using password or USB-key protection. Loudspeaker protection is provided by an output power limiter whereby the maximum output power for every channel (in Watt) can be configured. Configuration is made simple with loudspeaker presets and full system configurations which can be selected from a library and uploaded with an USB flash drive. This ensures the best acoustical performance with a bullet-proof loudspeaker protection. A great input flexibility and source compatibility is provided by the input selection matrix in combination with the XLR and terminal block signal connections. The outputs are made using Speaker and Terminal block connections. System integration is made easy using the RS-232 control port. An optional Dante™ interface is available for the WaveDynamics™ amplifiers. The installation of this network interface allows receiving and sending of low latency, high quality audio over a standard Ethernet network.

Applications:

- Bars & Restaurants
- Sporting facilities
- Hotels
- Houses of worship
- Clubs
- Events
- Corporate
- Retail

We reserve the right to change specifications without notice, this is part of our policy to continually improve our products.

System specifications:

Continuous power (AES)	@ 4 Ω Stereo	2 x 500 W
	@ 8 Ω Stereo	2 x 300 W
	@ 8 Ω Bridge	1000 W
Frequency	Response (± 3 dB)	20 Hz - 20 kHz
Signal / Noise		> 95 dB
THD+N (@ 1 kHz)		< 0.05% (1/2 Rated Power)
Crosstalk (@ 1 kHz)		> 70 dB
Technology		Class-D
Inputs	Sensitivity	-19.5 dB ~ 27 dB
	Impedance	10 kΩ balanced
	Connector	XLR & 3-pin Euro Terminal Block (3.81 mm)
Outputs	Connector	Speakon compatible & 2-pin Euro Terminal Block (5.08 mm)
Common mode rejection ratio		70 dB
Damping factor		> 200
Protection	Amplifier	DC Short circuit
		Over heating
		Over load
		Signal limiting
	Loudspeaker	Power limiter
	Access	User & Administrator level (Through password and USB-key protection)
Cooling		Temperature controlled fan
Operating temperature		0° ~ 40° @ 95% Humidity
Power	Supply	Switching mode
		AC Input: 100-120V/220-240V~ 50/60Hz

Note: Standard voltage and frequency of electricity varies from country to country. Please contact your local distributor to ensure suitable product variant voltage and frequency compatibility.

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Product Features:

Dimensions	482 x 88 x 420 mm (W x H x D)
Weight	7.450 kg
Mounting	19”
Unit height	2 HE
Construction	Steel
Colours	Black

Architects’ and Engineers’ Specifications:

The amplifier shall use WaveDynamics™ audio processing technology with two independant controllable channels each of them with an output power of 500 watt. The system shall be fully controllable through implementation in a total system control platform which is compatible with a wide variation of operating systems including Android, iOS, Windows, Mac and Linux. This application shall allow creation and customization of application-specific dashboards, allowing combining its controls together with other audio & video equipment from one single dashboard. The construction shall be transformerless, using Class-D amplifier technology and powered by a switching power supply. Acoustics shall be adjustable using the integrated DSP which provides advanced processing functions to each channel such as parametric 7-band equalizing, filters selectable between low-pass, high-pass and band-pass with Butterworth, Linkwitz-Riley or Bessel characteristics. Other functions such as output power limiting, time alignment delay and dynamic bass boost shall also be implemented. Each channel shall have integrated circuitry to protect against short-circuits or mismatched loads and over-heating. The operating temperature for each channel shall be continuously monitored and a speed-controlled fan will keep it within the operating range while minimising the acoustic noise. Additionally, the load shall be protected against DC faults and a clip limiter shall automatically reduce the input gain at onset of distortion. Full system control and monitoring shall be possible from the front panel of the amplifier equiped with an AC power switch, a blue power indicator LED and channel operation indicator LED’s. Two green signal LED’s indicating the presence of an input signal and it’s level exceeding the -20 dB level, a clip LED indicating the channel operation at maximum level and a protection LED indicating any fault detected shall be provided for each channel. Additionally, a user-friendly and intuitive graphical interface shall be shown on a 2.5” LCD on front allowing control for each of its functions. System access shall be lockable with password and USB-key protection on two different (user & administrator) levels. Uploading of pre-made configurations and loudspeaker presets shall be possible from a USB flash drive. Great input flexibilty and source compatibility shall be provided through an input selection matrix in combination with the balanced signal input connections which are available as female XLR connectors and 3-pin terminal block connectors. The output connections shall be performed using Speakon compatible and 2-pin terminal block connectors, allowing connectivity of multiple loudspeaker lines on one amplifier channel. The amplifier shall operate on a 230~240 V AC / 50 Hz mains network and shall be equipped with a removable power cord having a standard shuko (CEE 7/7) AC plug. The connector on the amplifier chassis shall be a fused IEC C14 type. The amplifier chassis shall be a two rackspace steel constructed 19’’ housing. Depth from mounting surface to rear supports shall be 420 mm and the weight shall not exceed 7.45 Kg.

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