

# Amplifier

# SA20:2

## High performances class D amplifier

2 bridgeable channels  
2 x 1950 W in 4  $\Omega$

### Features

High audio quality  
Performance and power efficiency  
Protection circuits for reliability  
Control software

### Applications

High quality sound reproduction  
Mid to high power amplification  
Medium to large scale APG systems

### Specifications

Universal switch mode power supply with PFC  
(Power Factor Correction)  
EIAJ Test Standard, 1 kHz, 1% THD  
Power efficiency >85%  
Fixed switch frequency

RS485 serial communication port  
Optional Ethernet/AES3 interface

The SA20:2 is a 2 channel fixed switching frequency class D power amplifier. Two bridgeable channels allow all sorts of configurations of cabling depending on speakers and impedance load.

Precise gain and sensitivity setting is obtained via internal digital gain control.

The SA20:2 delivers high power and sonic quality thanks to a careful design of all its components. The state-of-the-art switch-mode power technology allows high output power with superior efficiency.

The SA20:2 has a very high level of reliability thanks to its numerous protections against clipping and high voltages or current. Its functional parameters, mains voltage and current draw, are monitored and saved. The temperature is carefully controlled by variable-speed forced-air cooling.

The SA20:2 is lighter than most amplifiers and fits in only one rack unit to ease transport and handling. The device can be configured via its front panel LCD screen, and via PC connexion thanks to its RS485 port.



Amplifier SA20:2

The SA20:2 is a 2-channel amplifier for mid to high power applications. It uses the same internal technology than the SA30:2 and offers compatible performance, but it is less powerful. Its characteristics are high dynamic and power capacities, combined with a sturdy and ergonomic design that perfectly meets the requirements of live events and shows, in fixed installation as well as in touring.

Thanks to its performance in terms of power, it naturally suits APG speaker series Micro, Dispersion, Sector and Beam.

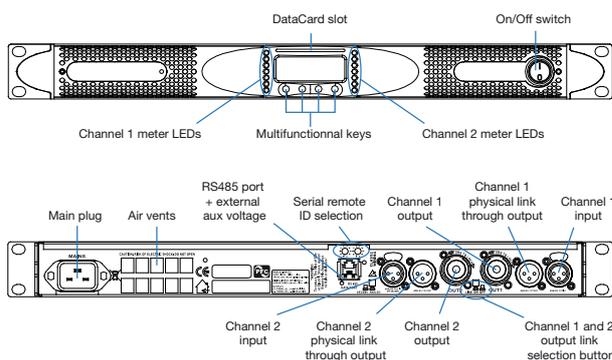
Although the SA20:2 amplifier is optimized for a 4 to 8  $\Omega$  load, operation under 2  $\Omega$  load is possible, provided there is a sufficient headroom. The bridged mode allows high-voltage operation into 4 to 16  $\Omega$  loads.

The SA20:2 must be used according to APG-recommended combinations of speakers and processors.

# APG

# SA20:2

## Technical Specifications



### General

### SA20:2

Number of channels	2				
Output power	stereo mode		mono-bridged mode		
EIAJ Test Standard, 1 kHz, 1% THD	2 Ω/ch	4 Ω/ch	8 Ω/ch	4 Ω	8 Ω
	2x2400 W	2x1950 W	2x1000 W	1x4800 W	1x3900 W
Max. output voltage / current	140 V (peak) / 102 A (peak)				

### AC mains power

Power supply	Universal, regulated switch mode with PFC (Power Factor Correction)		
Operating voltage	100-240 V ±10%, 50/60 Hz		
Power factor cos (φ)	>0.95 @ >500 W		
Consumption / current draw	@ 230 V	@ 115 V	
Idle	112 W	0.57 A	1.14 A
1/8 of max. output power @ 4 Ω*	609 W	3.1 A	6.3 A
1/4 of max. output power @ 4 Ω*	1219 W	5.7 A	11.4 A

### Audio

Gain (selectable via user menu)	26 dB	29 dB	32 dB	35 dB
Gate	-52 dBu	-55 dBu	-58 dBu	-61 dBu
Frequency response	20 Hz - 20 kHz (1 W @ 8 Ω, ±0.5 dB)			
S/N ratio	>106 dBA (20 Hz - 20 kHz, A weighted)			
Crosstalk separation	>70 dB @ 1 kHz			
Input impedance	10 kΩ balanced			
THD+N / SMPTE IMD / DIM100 IMD	<0.2% from 1 W to full power (typically <0.05%)			
Slew rate	50 V/μs @ 8 Ω. input filter bypassed			
Damping factor @ 8 Ω	>5000 @ 20 - 200 Hz			

### Front panel

Indicators	7 meter LEDs: 5 x green, 1 x yellow, 1 x red, top yellow and red show alarm with protect description on LCD panel
Controls	4 pushbuttons, function depending on user menu
Maintenance	SmartCard reader/writer for firmware updates and preset storage.
Network data port AESOP incl. AES3	2 x RJ45 with activity LEDs

### Rear panel

Audio signal input connectors	Analog: 2 x balanced Neutrik® XLR female; AES3: use channel 2 XLR
Audio signal output connectors	Analog: 2 x balanced Neutrik® XLR male
Loudspeaker output connectors	2 x Neutrik® Speakon NL4MD
Network data port RS485	1 x RJ45 with 2 recessed rotary encoders for ID selection
Aux voltage	1 x 2-pin Phoenix P. 3.81mm
Controls	1 x link switch, linking analog inputs 1 and 2, AES3/analog input switch

### Construction

Dimensions (H, W, D)	1.8" x 19" x 15" (44.5 x 483 x 380 mm)
Weight	17.7 lb (8 Kg)

Printing : November 2013

APG has a comprehensive research and development policy for the continual improvement of its products and service. Due to this, new materials, manufacturing methods and technological changes may be introduced without prior notice. As a result, an APG product can differ from its published description in certain areas. However, unless otherwise indicated, its characteristics will always equal or better the published specifications.