



Digital Series DS20

In this documentation you will find information about:

- Excellent sonic performance class-D design
- Flat, fully load-independent frequency response
- Mono block, switched mode power supplies
- Active Clip Eliminator
- 64-bits 96kHz digital processing
- Aluminum Reinforced Molest Resistant chassis
- Road(y) proof
- Technical specifications

Excellent sonic performance class-D design

High power and very pure signal amplification under heavy user conditions were the main goals in the development of the DS Series amplifier range. These (mono block) power amplifiers are built with an excellent sonic performing class-D design for increased efficiency by decreased weight and dissipation. With an output power exceeding 700W @ 4Ω per channel, a S/N ratio of more than 110dB and a THD percentage of < 0.007% @ 1kHz (100W, 8Ω). The DS20 combines (sound)quality, power and very low weight into one unit. Each audio channel has its own power supply. The SA digital amps are among the best sounding digital amps on the pro-audio market!

Active Clip Eliminator

Also built into the DS20 is our Active Clip Eliminator (ACE™), a circuit which constantly monitors all outputs of the amplifier for continued clipping. When clipping is detected, the related input is inaudible reduced to the safest maximum level in order to prevent harmonics from damaging the high frequency drivers, to maintain the amplifier's sonic quality and to prevent thermal shutdown.

64-bit 96kHz digital processing

Controlled by a very high quality 64-bit DSP unit the DS20 has all the necessary features of a modern professional amplifier to process input from the analog and digital domain. The internal DSP unit provides the following functions: SA speaker dedicated presets, compressor, limiter and delay, up to 10 parametric filters on each in- and output, up to 24dB/Oct. Bessel / Butterworth / Linkwitz-Riley crossovers, max. 1s delay on each input, max. 40ms delay on each output, full configuration and real time monitoring via PC over Ethernet (10/100Base-TX, IP addressing through DHCP or APIPA) or USB interface. The Stage Control software, to remote control the DS20, is available for MS Windows (32-bit and 64-bit) and Mac OS X.

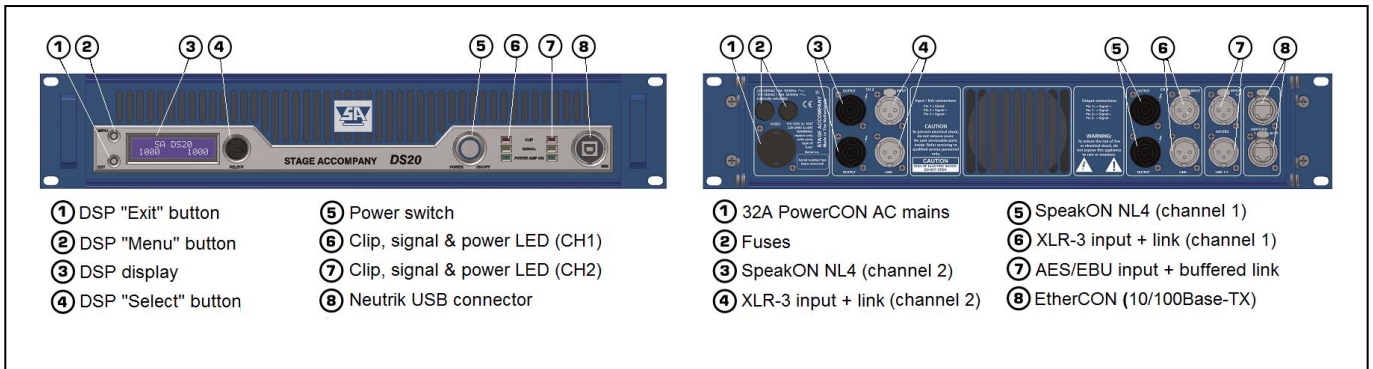
Aluminum Reinforced Molest Resistant chassis

As base, the well-known Stage Accompany ARMoR™ chassis is used, made from 3mm thick ("mill-spec") aluminum. Indestructible, absolute torsion free, best strength to weight ratio in the industry, improved heat dispersion and a high radiation shielding are the characteristics of this chassis.

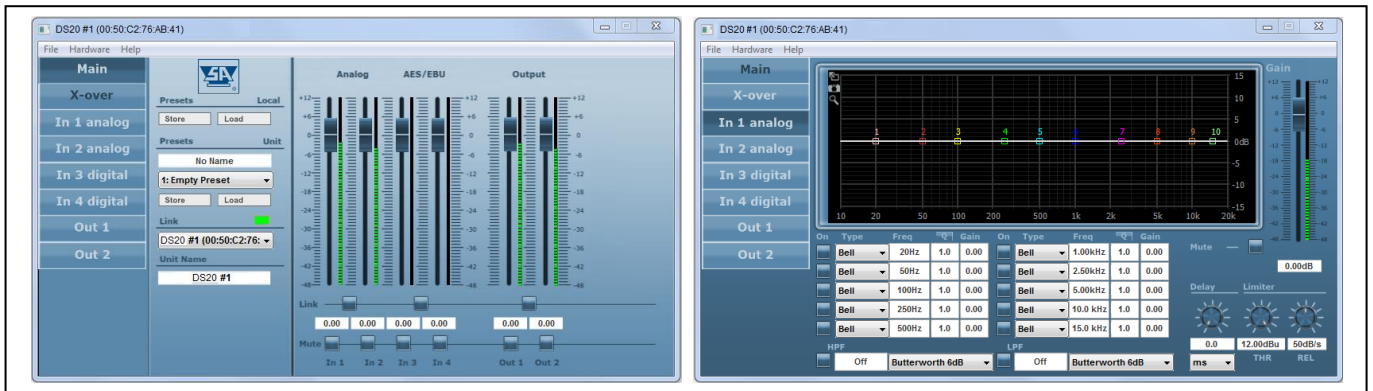
Road(y) proof

The amp is equipped with "Soft start" circuit, variable fan speed, ground lift and LED indicator "power", "signal", "clip". Specific readouts about output power, level, limiting and others will be showed at the 2.5" front panel display. The amp is protected against high temperature, DC on output, short circuit and HF on input.

Front and rear view of the DS20



Stage Control software



Technical specifications

Efficiency	: 92% @ full power
Max input level	: +23dBu
Input impedance	: 25kΩ
Frequency range (@ 100W into 8Ω)	: 10Hz – 40kHz
Gain	: 26dB
Channel separation	: > 90dB @ 1kHz
Total harmonic distortion	: 0.02% 20Hz – 20kHz, Pout < Pmax/2 0.005% 20Hz – 20kHz, Pout = 1W amplifier section
Output noise	: 30uV unweighted, 20Hz – 20kHz
Damping factor	: 500 @ 1kHz, 8Ω
Output power (@ 1kHz, < 1% THD)	: 2 x 400W @ 8Ω 2 x 700W @ 4Ω 2 x 1200W @ 2Ω (short term)
Amplifier section	: flat load-independent frequency response
Audio, data & mains connections	: 1 x Neutrik USB connector (located at the front) 2 x XLR-3 female connector for input signal 2 x XLR-3 male connector for signal link 4 x SpeakON NL4 for output signal 1 x 32A PowerCON connector for mains power 2 x EtherCON connector (switched 10/100/Base-TX, can be stacked up to 24 units) 2 x XLR-3 AES/EBU connector for input and buffered out
DSP section	: up to 10 parametric filters on each input and each output Butterworth, Bessel, Linkwitz-Riley filters up to 24dB/oct. compressor, limiter and delay on each input and each output
Mains supply voltage	: stated at the rear of amplifier
Power consumption	: 1400VA
Housing	: 19" Rack Mount, 2HU high, 415mm deep
Weight	: 9.9kg (21.6lb)
Warranty	: 3 years



Stage Accompany bv
 Haven 28
 2984 BR Ridderkerk
 The Netherlands
 Tel: 31 (0)180 426225
 Fax: 31 (0)180 421831
 E-mail: info@StageAccompany.com

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That's How Music Should Sound!