

SOLO | FACT SHEET

The coaxial horn speaker



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ACOUSTIC

SOLO FACT SHEET

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SOLO

97 dB sensitivity of the drivers
18.4 inch spherical midrange horn
Coaxial tweeter configuration
Fully active
12 inch bass drivers
250 watt amplifier



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THE SYSTEM

Proudly taking its place in the family of horn speakers, the Solo is the compact full range horn system from Avantgarde Acoustic™.

The famous Avantgarde Acoustic™ virtues are all present and accounted for in the Solo: precise reproduction, powerful drive, and involving dynamics.

The Solo is a fully active, coaxial 2-way horn system in a bass reflex enclosure. With its powerful integrated 250 Watt amplifier and its point-source dispersion characteristics it is simple to be set up and can be easily matched to different acoustical environments.

Especially the particular demands of a home theatre reveal the full potential of the homogenous point-source dispersion. As an ideal centre-speaker and an excellent full-range rear speaker the Solo meets your highest requirements for an authentic cinema feeling at home.



SOLO DRIVERS

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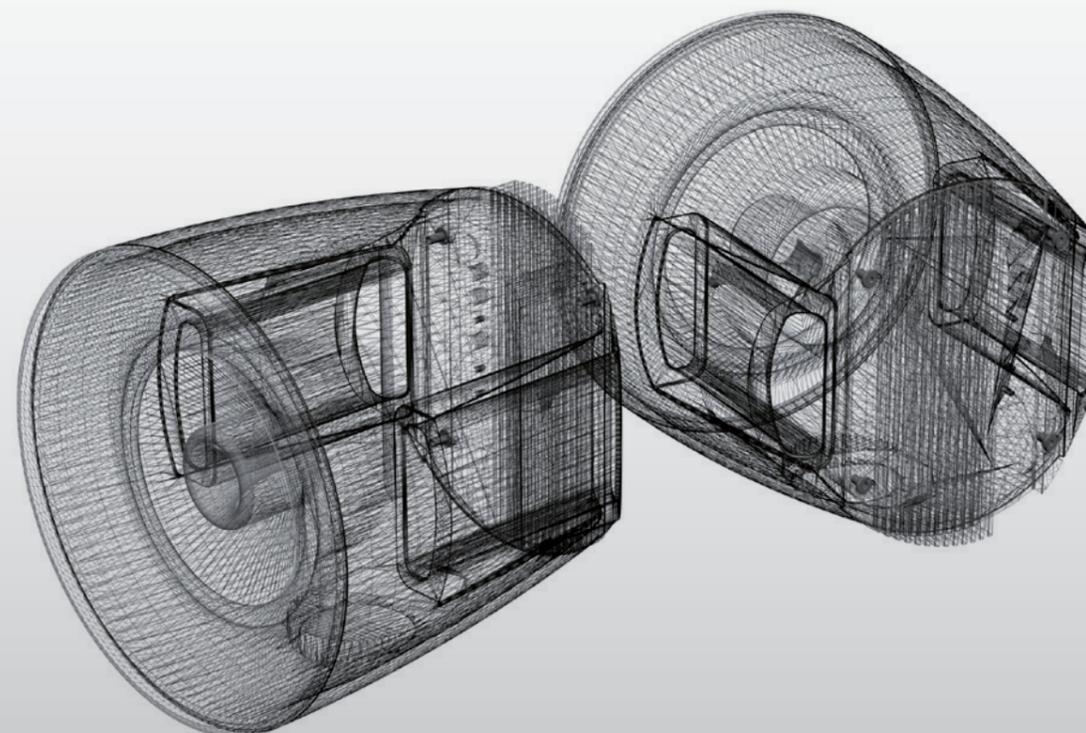
THE MIDRANGE HORN DRIVER

The core of the Solo concept is its powerful 12C250 coaxial driver. Its outstanding technical parameters and the consequent optimization for the coaxial horn concept attributes to the revealing character of the Solo.

Usually, coaxial speakers use the membrane of the bass unit as the tweeter horn. These vibrating horns cause colorations. The Solo goes one step beyond. Its H1-tweeter is mounted concentrically on the backside of the 12C250 and radiates through the magnet pole into a fully extended 4 inch horn.

The tweeter horn at the same time serves as a phase plug for the bass unit. As a result one gets a controlled dispersion with amazing homogeneity even off-axis. This makes the Solo ideal for the most demanding hometheatre systems. The enormous 4" voice coil, the rigid cellulose membrane and the powerful magnet structure of the bass driver ensure high power handling and incredible dynamic headroom. Its optimized suspension allows for a long excursion in the symmetrical magnetic field.

The nominal impedance of the 12C250 is 8 ohm.



SOLO DRIVERS

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THE TWEETER HORN DRIVER

Based upon the same design principle of the Trio tweeter H3, the H1 offers very low distortion and excellent transient characteristics.

With its powerful 44 mm voice coil (1.75 inch) the H1 is a high-frequency tweeter providing an extremely wide frequency range acoustically reaching down up to 1 kHz. Extreme reserves and operational reliability are ensured, as the H1 is only operated down to 2.000 Hz.

The over-dimensioned magnet structure of the tweeter with a weight of 3 kg (6.5 lb) results in a sound pressure level of 104 dB (Watt/m) at very high power rating.

The nominal impedance of the H1 is 16 ohm.



SOLO AMPLIFIER

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THE SOLO AMPLIFIER

The elegant integrated aluminium heat sink at the rear of the Solo houses the electronics. The active module consists of a flexible input control unit, an active frequency crossover and a power amplifier - specially matched to the coaxial driver and bass reflex enclosure.

The 250 watt amplifier equalizes the system in the low frequencies and ensures extended full range speaker capabilities in a surprisingly small and compact enclosure. The 270 VA transformer and 40,000 μ F power capacitors provide the necessary high-energy reserves for critical passages. The amp has a high damping factor for precise control of the drivers.

A newly designed circuitry controls and aligns phase shifts and sensitivity of the drivers and passive crossover components. To avoid noise when switching the amp on, the PA201 is equipped with a Soft-Start automatic. This circuit gently powers the amp into operation, thereby avoiding the use of conventional relays with their reliability issues.

The Solo can be driven via high power XLR speaker input terminals for direct connection to integrated amps (and power amplifiers or receivers) or alternatively via cinch or balanced inputs to preamplifiers. Variable input sensitivity and bass equalization, adjustable subsonic filters and switchable high frequency response ensuring a very easy and fast installation of the system even in acoustically critical situations or behind perforated screens in home theatre applications. The Solo can be remotely switched ON/OFF using the 12V trigger signal of AV amps. A ground lift switch enables the user to lift the ground.



SOLO CONSTRUCTION

The coaxial horn speaker



MECHANICAL CONSTRUCTION

The enclosure and the horns of the Solo are made of specially developed Polyurethane material. Its extraordinary compact and homogenous molecular structure, providing maximum mechanical strength and resonance damping attributes. Our VMT-technique (varying material thickness) with additional structural supports in the inside and the round shape of the body makes the enclosure acoustically "dead", standing waves will not occur and the enclosure gets physically very solid and robust.

The self-stabilizing joint assembly of horn, body and amplifier module made it possible to significantly reduce the dimensions of the Solo.

An aluminium stand and optional mounting brackets (for wall or ceiling mount) are available.



SOLO COLORS

The coaxial horn speaker



COLORS FOR THE HORNS

 Stealth Nocturne Black <small>(panel only)</small>	 Turmaline Vivid Black
 Stealth Nocturne Grey	 Shiny Citrine Orange ¹⁾
 Diamond Crystal Silver	 Ruby Brilliant Red
 Akoya Pearl White	 Sapphire Burma Blue
 Light Amber Bronze	 Light Topas Blue
 Saona Beach Cream	 Smaragd Pearl Green

A selection of ten standard colors is available for the horns. This includes eight metallic lacquer finishes, the uni-color „Saona Beach Cream“ finish and the moderne „Stealth Nocturne Grey“ finish. The special „Shiny Citrine Orange“ multi-layer coating is available as an option.

On this page you will only find a small selection of thumbnails of the color combinations possible. For a better overview you should visit our website www.avantgarde-acoustic.com.

Here you can download a special *Color & Finishes.pdf* for each product. In this document you can find a nice overview of all combinations available.

COLOR CONFIGURATOR

On our website www.avantgarde-acoustic.com you will find as well a comprehensive color selection tool. Just go to the Trio product within the *HORN*-section. Under *DESIGN* you can select the color of the horn. If you have found your favorite color combination, simply click on the download-button for a high resolution picture (6 mb).

¹⁾ optional customized color

SOLO | REVIEWS

The coaxial horn speaker



TEST REVIEWS*

"Avantgardes high quality sound engineering demands respect and is continued with the SOLO. This is a remarkable loudspeaker. Choose your colour and enjoy the vibrant go-for-it sound. In home theatre installations it should be stunning! Noting that the Solo includes on-board amplification, automated power-up and great versatility, this fascinating speaker may not have universal appeal, but easily scores high enough." (HIFI NEWS & RECORDS, R. Harris, UK)

"The SOLO's reproduction caused enthusiasm not just for quantitative but rather qualitative performance: Image outlines were enormously precise. Translation? The virtual stage appeared as though cast in stone, without any drift or confusion. It's easily set up and universally adaptable. It plays loud and merely requires a preamp. It simply defines a compact class of its own." (STEREOPLAY, M. Dittert, GERMANY)

"Hearing is believing: The biggest surprise was the lack of coloration from the very visible horns. And the Avantgardes' ability to play loud with only a few watts means that you don't need a big amplifier to drive them. BAT amps were having no trouble working with the TRIOs (L/R front), SOLO (center and rears), and SUB225 subwoofers to create an impressively big, dynamic home-theater sound." (STEREOPHILE Guide to Home Theater, T. J. Norton, USA)

"Fine shades in volume were nicely reproduced, undistorted max sound pressure levels are thrown with incredible nonchalance and the brutal force is beyond any serious competition. The phantasmagoric sense of speed reaches effortless throughout the entire spectrum. Sonic attributes gain in unbelievable authority and convey in a realistic substantial manner." (IMAGE HOME ENTERTAINMENT, R. Kraft, GERMANY)

"The SOLO impressed me, especially its line-genetic spontaneity of reproduction, with a huge fun quotient perhaps best described as the hotrod turbo-charged Porsche among speaker systems. Extreme dynamics, resolute acceleration out of every gear, generating intense elation with the travelers. In short, a loudspeaker system concept for listeners who value dynamics, neutrality and the occasional speed rush of live-like volumes." (HÖRERLEBNIS, A. Aschenbrunner, GERMANY)

TEST REVIEWS*

"Besides the incredible undistorted max. sound pressure levels, one should emphasize the precise focus, the micro dynamics and the impressive temperament even at low volumes. Summary: High End AV at its best. Bass performance, dynamic and spl on an undisputable level. Top build quality. An emotional and fun machine of first grade. A speaker for gourmets." (IMAGE HOME ENTERTAINMENT, R. Kraft, GERMANY)

"Desire sonic lift-off? Admire Avantgarde Acoustic SOLO's new turbine design? Harbor anti-horn notions? The doubts are ungrounded... This baby is the hammer! Outer-space looks, requiring no amp, it simply sounds stellar: Resolved, dynamic, gentle, without typical horn colorations. A massive recommendation for everyone." (STEREO, H. Barske, GERMANY)

"The SOLOs imaging was like that of mini-monitors on steroids. Their outstanding intelligibility, wide ranging adjustability, built-in amps and equalization and small size could make them unbeatable for home theatre." (THE ABSOLUTE SOUND, L. Kay, USA)

"Fully active and with its coaxial horn design the SOLO quickly demonstrates what high end sound reproduction is all about. With this presentation it is clear that our reference class has a new member." (HIFI TEST, O. Sturm, GERMANY)

"The SOLO gives you an amazingly complete system, of extraordinary capability, in an amazingly compact and convenient package. Considering that you get such an impressive speaker, plus a power amp, plus an electronic crossover, the Solo's price is excellent value. They equal or surpass the sonic capabilities of most huge tower speakers. Put five of these in your home theater, and you will have mind blowing sonics." (IAR, P. Moncrieff, USA)

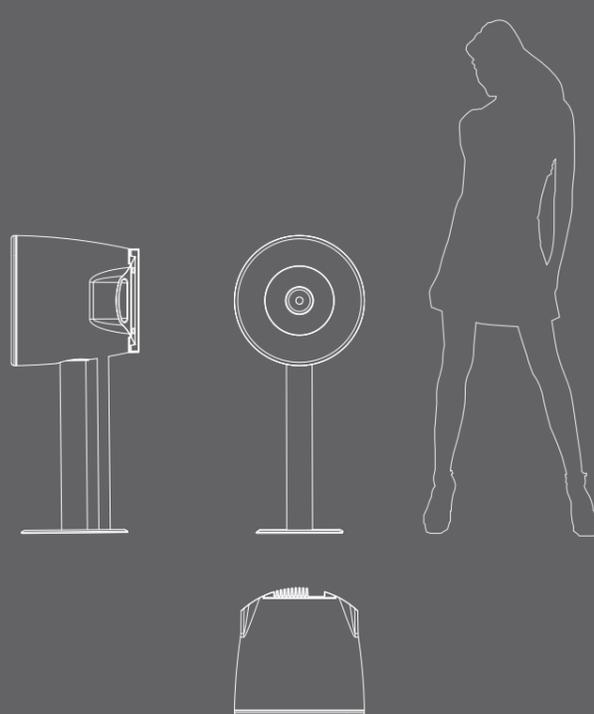
*) This is just a small selection of reviews. More quotes from international reviews for each product, can be downloaded on our website.



communication
design
award

2010

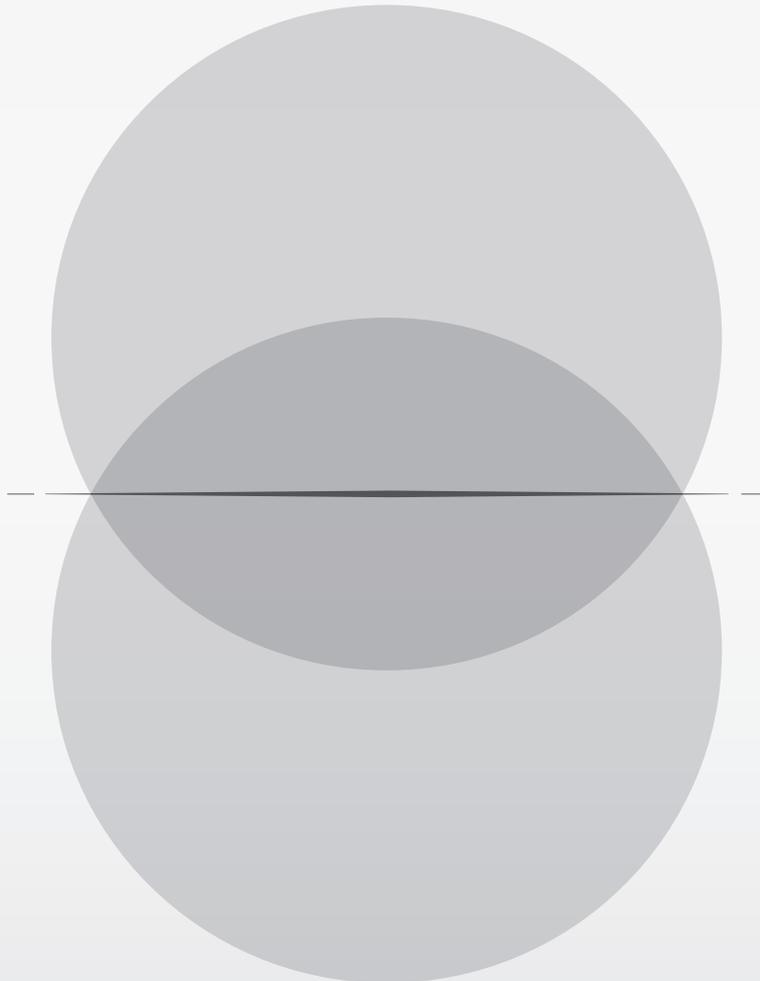




SYSTEM DATA	
Frequency response	
Power capacity	
Sensitivity (1 Watt / 1 m)	
Crossover frequencies	
Nominale Impedance	bass driver tweeter
Recommended amplification	
Recommended room size	
HORN	
Horn type	
Horn material	
Horn finish	
Dispersion type	
Horn mouth area	low mid range mid range high range
Horn mouth diameter	low mid range mid range high range
Horn length	low mid range mid range high range
HORN DRIVERS	
Diameter	low mid range mid range high range
Magnet material	low mid range mid range high range
SUBWOOFER	
Power Output (RMS)	
Power capacitance	
Toroidal transformer	
REAL TIME feedback control	
ADRIC circuit (patent pend.)	
Bass EQ	
Subsonic filter	
Automatic 12V remote On/Off	
Smart Limiter	
SoftStart circuit	
Driver diameter	
Number of drivers per module	
Magnet material	
DIMENSIONS/WEIGHT	
Dimensions	width depth height without stand
Weight	

30 - 20.000 Hz
250 Watts
n/a active system
2.000 Hz
8 Ohm
16 Ohm
n/a active system
> 15 m ² / 160 ft ²
Expo-spherical horn
Polyurethan
polished
90/180 degree
0,166 m ² / 257 in ²
n/a
0,0078 m ² / 12 in ²
460 mm / 18 in
n/a
100 mm / 4 in
60 mm / 2.4 in
n/a
60 mm / 2.4 in
300 mm / 12 in
n/a
25 mm / 1 in
Ferrite
n/a
Ferrite
250 Watts
40.000 µF
330 VA
n/a
n/a
variable
variable
Yes
n/a
Yes
300 mm / 12 in
1
Ferrite
460mm / 18 in
455 mm / 18 in
460 mm / 18 in
30 kg / 66 lbs

purity



performance



avantgarde
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