

Matrix Array Series

APG6000

Intuitive Line Source System

Four-way tri-amplified (two enclosures)
3 x 15" cone drivers (4" ventilated coil)
2 x APG ISOTOP5™ drivers

Features

Line-source concept
Collinear layout
Horizontal and vertical directivity control
Conforms to the Matrix concept

Applications

Very high power long throw systems
Large stacks and clusters
Long throw complement for the APG4000

Specifications

3 700 W AES
SPL Max @ 1m 144dB
20.4" x 29.3" x 30.7" (518 x 744 x 780 mm)
45 Hz - 19 kHz (6000LO + 6000HI)
80 Hz - 19 kHz (6000HI wideband mode)
60° H x 5° V
6000LO : 2 x 8 ohms
6000HI : 8 ohms (Lo-mid), 16 ohms (Mid-Hi)

Three way amplification
Processor 6000SP mandatory
Optional infra bass subwoofers

The APG6000 is formed by two externally identical enclosures resulting in a 4-way collinear set up.

The 6000LO speaker is equipped with two 15" cone drivers, loaded by a dual interactive chamber. The low/mid section of the 6000HI speaker includes one 15" cone driver, loaded by a vertical horn. The mid/high section uses a collinear arrangement constituted by a vertical network of two mid/high drivers, each including a coaxial 6,5" cone transducer and a 1" HF unit, providing a 5° vertical opening. This device is loaded by an exclusive new generation APG ISOTOP5™ waveguide. This assembly provides an efficiency of 110 dB up to 19 kHz and provides constant coverage of 60° horizontal and 5° vertical.

The exclusive APG ISOTOP5™ wave guide uses an isophase annular horn providing impedance adaptation, which allows the achievement of efficiency comparable to traditional compression chambers, but with noticeably lower distortion and increased bandwidth and power handling. The use of the 6000SP processor is mandatory.

For extension in low frequency, APG recommends the following subwoofers : SUB238S, TB115S, TB118S, TB215S or TB218S.



One APG 6000 system = 1 x 6000HI + 1 x 6000LO

The APG6000 belongs to the concept of the APG Matrix Array Technology.

It is designed for high power and long range FOH applications.

The dynamic capacity of the APG6000 places it in the top rank in terms of SPL-to-size ratio.

Based on similar footprint and the same ergonomics as the other Matrix systems, the APG6000 is a natural long-throw complement for APG4000 based systems.

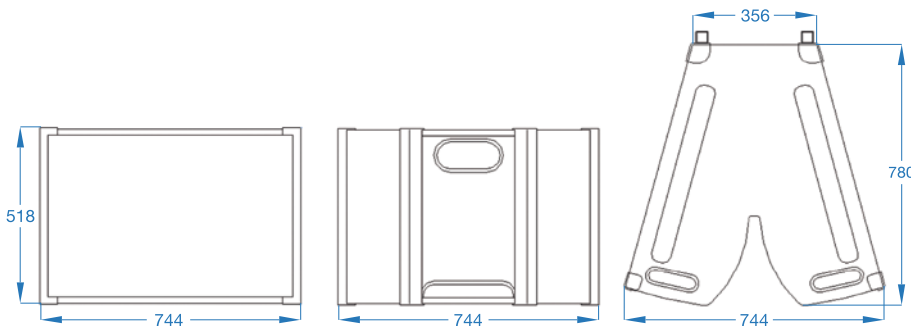
Its very high precision, combined with its ease of installation and set-up make it one of the very few line-source systems that can be qualified of "intuitive". The collinear technology of the Matrix systems is the foundation of the Matrix concept i.e. the capacity of creating very homogeneous and coherent configurations thanks to the simultaneous control of horizontal and vertical coverage. The installed power is minimized for a maximized performance in terms of acoustic pressure, coverage and throws.

The APG4000 and APG6000 systems are perfectly compatible and complimentary: They all use the same internal components and technologies. They have in common the same horizontal dispersion angles, the same installation principles and the same connectors and flying systems. The APG6000 flying hardware is a fully integrated system.

APG

APG6000

Technical Specifications



Features	6000LO	6000HI	
		lo/mid	mid/high
Frequency range 4 way mode (± 3 dB)	45 - 160 Hz	160 - 800 Hz	0,8 - 19 kHz
Frequency range 3 way mode (± 3 dB)	-	65 - 800 Hz (1)	0,8 - 19 kHz
Sensitivity @1W 1m	104 dB SPL	104 dB SPL	112 dB SPL
Maximum level @ 1m	137 dB SPL	138 dB SPL	
Peak Level at 1m	140 dB SPL	144 dB SPL	
Directivity, -6 dB	60° H x 5° V (2)		
Nominal impedance	2 x 8 ohms	8 ohms	16 ohms

Components

Transducers	2 x 15"	1 x 15"	2 x 6,5" + 2 x 1" HF coaxial driver
Coil diameter	100 mm (4")	100 mm (4")	50 mm (2") and 45 mm (1.75")
Type of load	Interactive double tuned	Elliptical Horn	ISOTOP and elliptical Horn

Power

Minimum amplification	2 x 1000 W / 8 ohms	1000 W / 8 ohms	600 W / 16 ohms
Peak	2 x 2000 W	2000 W	1200 W
AES (3)	2 x 1000 W	1000 W	700 W

Construction and characteristics

Cabinet	18mm Finnish birch plywood with external 4 mm iron skeleton		
Coating	Black, impact resistant aquarethane		
Protection grill	Acoustically transparent perforated steel, 1.5mm thick		
Front panel	Black, 15mm acoustic foam		
Connectors (4)	2 x SPEAKON NL8MP		
Handles	7 x internally recessed hand-holds		
Rigging	8 x rigging points		
Transportation trolley	18mm Finnish birch plywood, 4 mm steel corners, 5" (125 mm) casters with brakes		
Dimensions (H, W, D)	20.4" x 29.3" x 30.7" (518 x 744 x 780 mm)		
Net unit weight	117 lb (53 kg)	148 lb (67 kg)	

Options

6000PR (5)	Wheel board for APG4000 & APG6000 speakers (weight of 14kg, 58lbs)
PCM (6)	Mono connection patch (4 way) 2U
PCS (6)	Stereo connection patch (8 way) 2U

Flying System

6TRUSS (7)	Hanging Truss for APG4000 & APG6000 systems
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Signal Processing

The 6000SP processor is designed to operate in conjunction with the APG6000, optimizing equalization, filtering, protection and distribution of signals. Each channel comprises a crossover, an EQ stage, an alignment delay and a dynamic protection circuit. A mono Sub output allows the use of additional infra bass subwoofers.

(1) The 6000 HI cabinet can be used alone when a low frequency cut off of 65 Hz and a limited acoustic power at low frequencies are acceptable.

(2) Dispersion is controlled from 500 Hz. The angles given here are irrelevant below this frequency.

(3) In order to take full benefit of the dynamic performance, sonic quality and reliability of the speakers, the recommended amplification must at least correspond to the AES rating. Lesser amplification is acceptable for applications requiring less power (near-field, distributed systems,...), whilst not being less than half the AES rating. The AES power handling corresponds to a 2 hour test using weighted pink noise (peak factor of 6dB) through a frequency range of one decade.

(4) The SPEAKON connectors are wired as follow : hot L01 pin 1+, cold L01 pin 1-, hot L02 pin 2+, cold L02 pin 2-, hot L0MID pin 3+, cold L0MID pin 3-, hot MID-HIGH pin 4+, cold MID-HIGH pin 3-.

(5) The optional 6000PR wheel board is equipped with four 5" (125mm) braking castors and two steel reinforcement bars.

(6) Connection patch PCM (mono) and PCS (stereo) is made up of 4 SPEAKON 8 and 4 SPEAKON 4, 4 female XLR3, 4 male XLR3, (except for stereo: 8 female XLR3).

(7) 6TRUSS and main accessories of the flying system. Refer to others technical brochures for the complete configurations.

5 YEARS WARRANTY "A five years warranty covers passive filters, transducers and compression drivers. The warranty does not cover cosmetic damages and damages due to misuse, improper installation, or damages caused by alterations.

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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.