

Matrix Array Series

Medium Throw High Power System

Four-way tri-amplification (two enclosures)
3 x 15" cone drivers (4" ventilated coil)
1 x APG ISOTOP™ driver.

Features

Collinear layout
Horizontal and vertical directivity control
Compactness and ease of handling
Matrix configuration capability

Applications

Very high power system
High precision coverage system
Medium range applications

Specifications

3 300 W AES
SPL Max @ 1m 139 dB
17.1" x 29.5" x 30.7" (435 x 750 x 780 mm)
45 Hz - 19 kHz (4000LO+4000HI)
65 Hz - 19 kHz (4000HI Wideband mode)
60° H x 15° V
4000LO: 2 x 8 Ohm section
4000HI: 8 Ohm (Lo-mid), 8 Ohm (Mid-Hi)

Three way amplification
Processor 4000SP mandatory
Optional infra bass subwoofers

The APG4000 is formed by two externally identical enclosures resulting in a 4-way collinear set up.

The 4000LO speaker is equipped with two 15" cone drivers, loaded by a dual interactive chamber. The low/mid section of the 4000HI speaker includes one 15" driver, loaded by a dual horn. The mid/high section uses the proprietary ISOTOP™ technology, based on mid/high motor associating a 6.5" coaxial driver and a 1" HF unit.

This device is loaded by the exclusive APG ISOTOP™ waveguide.

This driver features an efficiency of 104dB within a bandwidth of 600Hz to 19kHz and provides constant coverage of 60° horizontal and 15° vertical.

The exclusive APG ISOTOP™ 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 4000SP processor is mandatory.

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

APG4000



One APG 4000 system = 1 x 4000HI + 1 x 4000LO

The APG4000 belongs to the concept of the APG Matrix Array Technology.

It is designed for high power and medium range F.O.H applications. Its versatility offers the possibility to configure a system from one 4000Hi only up to large clustered configuration with APG6000 systems for very long throw high power application. The APG4000 system is defined by its compactness and its high sound reproduction quality while offering simple installation set up.

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.

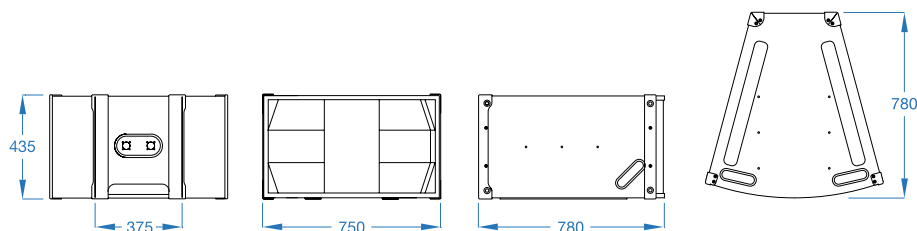
The Matrix Array series, APG4000 and APG6000 are fully compatible and complementary: same components, identical technology and design, cabling and lifting systems compatible. A standard APG4000 F.O.H set up is composed of 4 x 4000LO speakers and 4 x 4000HI speakers, 1 x 4000SP processor 4 amplifiers able to deliver each a minimum of 2 x 1400W in 8 ohms.

4000PR or 6000PR trolleys are available as option.

APG

APG4000

Technical Specifications



Features	4000LO	4000HI	
		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	108 dB SPL
Maximum continuous level at 1m	134 dB SPL	134 dB SPL	
Peak Level at 1m	139 dB SPL	139 dB SPL	
Directivity, -6 dB	-	60° H x 15° V (2)	60° H x 15° V (2)
Nominal impedance	2 x 8 Ohm	8 Ohm	8 Ohm

Components

Transducers	2 x 15"	1 x 15"	1 x 6,5" + 1 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 Ohm	1000 W / 8 Ohm	300 W / 8 Ohm
Peak	2 x 2000 W	2000 W	1000 W
AES (3)	2 x 1000 W	1000 W	300 W

Construction and characteristics

Cabinet	18mm Finish birch plywood included in an external 4 mm iron skeleton
Finish	Black, impact resistant aquarethane coating
Protection grill	Acoustically transparent perforated steel, 1.5 mm thick
Front face	Black, 15 mm acoustic foam
Connectors	2 x SPEAKON NL8MP (4)
Handles	7 x integrated wooden cut out handle
Rigging	8 x rigging points (5)
Dimensions (H,W,D)	17.1" x 29.5" x 30.7" (435 x 750 x 780 mm)
Net unit weight	88 lb (40 kg) 114,7 lb (52 kg)

Options et Accessories

4000PR (5)	Wheelboard with strap for APG4000 speaker (weight of 14 kg, 58 lb)
6000PR (5)	Wheel board for APG4000 & APG6000 speakers (weight of 14 kg, 58 lb)
REPEINT07 (6)	Paint option according to RAL or Pentone reference
PCM (7)	Mono connection patch (4 way) 2U
PCS (7)	Stereo connection patch (8 way) 2U

Flying System

4TRUSS (8)	Hanging Truss for APG4000 system
6TRUSS (8)	Hanging Truss for APG4000 & APG6000 systems

Signal Processing

4000SP integrates all functions : active crossover, EQ, speakers' protection and signal distribution. A mono Sub output allows the use of additional infra bass subwoofers.

(1) The 4000 HI cabinet can be used alone when a low frequency cut off of 65 Hz and a limited acoustic power in 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 LO1 pin 1+, cold LO1 pin 1-, hot LO2 pin 2+, cold LO2 pin 2-, hot LOMID pin 3+, cold LOMID pin 3-, hot MID-HIGH pin 4+, cold MID-HIGH pin 3-.

(5) 4000PR optional transportation trolleys are fitted with four 3.9" (100 mm) casters with brakes, four protection steel corners and one strap.

(6) Paint preparation for the requested color.

(7) 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).

(8) 4TRUSS and 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.

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.

APG