

# BUTTERFLY C.D.H. 483

## DESCRIPTION

The C.D.H. 483 Hi-Pack is the Butterfly system's element for mid-low, mid and high frequency reproduction. Weighing just 35 kg, the cabinet has an unmistakable shape which brings to mind the butterfly from which it takes its name, thanks to the triangular opening in the upper and lower "sides". This original design solution favours the optimum coupling of array elements up to the highest frequencies, keeping the distance between the sources as short as possible and at the same time providing them with a continuous loading 'baffle'.

The high frequency section of the Butterfly system is equipped with a 3" (1.41" throat) compression driver coupled with a D.P.R.W.G. (Double Parabolic Reflective Wave Guide) device geometrically based entirely on precise mathematic calculations to take a circular planar (flat) wavefront emitted by the source at its input (e.g. that of a compression driver) and transforming it into a rectangular planar wavefront at its output, keeping signal

paths identical from every emission point of the source. The rectangular planar wavefront thus obtained can be loaded by an appropriate horn or waveguide to ensure the necessary coverage.

Four high-efficiency 8" mid woofers: two band-pass loaded (110 ÷ 400Hz) and two reflex high-pass (110 ÷ 1250Hz) loaded by the sides of a waveguide with a 90° dispersion angle are connected in parallel without any type of passive crossover, so can both be powered using one amplifier.



## BUILT-IN HARDWARE

Butterfly Hi-Pack is equipped with built-in flying hardware enabling to adjust the angle between the elements with minimum increments of as little as 0.25 degrees. Its hardware has been certified according to the strictest international norms and allows for flying an array of up to 32 C.D.H. 483 Hi-Packs.

## V.I.P. – SOFTWARE

The Butterfly project includes the design of sophisticated acoustical and mechanical simulation software, which greatly facilitates installation, setting and aiming of up to sixteen different sound systems simultaneously, made up of Hi-Packs, Lo-Packs and Subtech subwoofers, positioned to cover up to eight different listening areas simultaneously. V.I.P. (the abbreviation of Vector Implementation Protocol) software work out the aiming both flown and stacked systems, shows all the mechanical and acoustic information necessary for riggers and system engineers to proceed with the installation of each single array. Much more than a mere Vertical Line Array "aimer", V.I.P. 2 offers simulations of not only the SPL for each point in the area in question, but also frequency simulations in 1/3 octave.

## TECHNICAL SPECIFICATIONS:

FREQUENCY RESPONSE	(-10 dB)	110Hz – 18kHz
	(±3 dB)	80Hz – 18kHz

AVERAGE DISPERSION	Horizontal	Vertical
	90°	90°
	Depending on array height and curvature	

IMPEDANCE (OHMS)	Low/mid	High
	4 Ohms (min. 3.5)	8 Ohms (min. 8.3)
Power - Watts AES	Cont.	Peak
High-pass filtered low/mid	800	3200
High	120	480

CALCULATED MAX SPL - 1M	(Single Unit - full space)	Low/mid	High (8 kHz)
	Cont.	Peak	
	128.5	138.5	
	131	141	

Min box array MAX SPL - 1M	4-box flat array low/mid	4-box flat array high (8 kHz)
	Cont.	Peak
	140.6	150.6
	143	153

CONNECTORS	2xNL4 Speakon in parallel
	Pin 1+ low mid ; Pin 1- low mid
	Pin 2+ Hi ; Pin 2- Hi

LOUDSPEAKERS AND LOADING	Low/mid	Mid	High
	2x 8" NdFeB bandpass loaded woofers	2x 8" NdFeB partially horn-loaded mid woofers	1x 3" Diaphragm NdFeB, D.P.R.W.G. loaded compression driver

WEIGHT (KG)	Net Weight (Including flying hardware)	35
-------------	--	----

DIMENSIONS (CM)	Front Height	Rear Height	Width	Depth
	24	19.4	70	60

