

## HI ENERGY

# HX 300 D

1200 WATT

### Technical Specifications

Component	Subwoofer	
Size	mm	300 (12")
Power Handling (Watt)	peak	1200
	continuous program	600
Impedance	Ohm	4+4
Frequency response	Hz	20-250
Sensitivity	dB/SPL	97
Outer diameter	mm	316
Mounting hole diameter	mm	283
Magnet size	mm	170
Total depth	mm	170
Mounting depth	mm	149
Total driver displacement	lit	2,5
Weight of one component	kg	8,76
Voice coil diameter	mm	65
Magnet	Double coil, Double magnet, High density ferrite	
Cone	Water-repellent, non-pressed paper cone	
Xmech*	mm	20

\* Xmech maximum mechanic excursion: it indicates the motion range in the speaker linear functioning area, in both ways.

### Electro-Acoustic Parameters

Values are given with coils in parallel connection

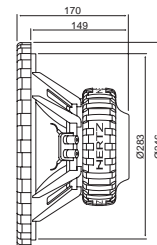
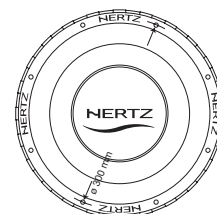
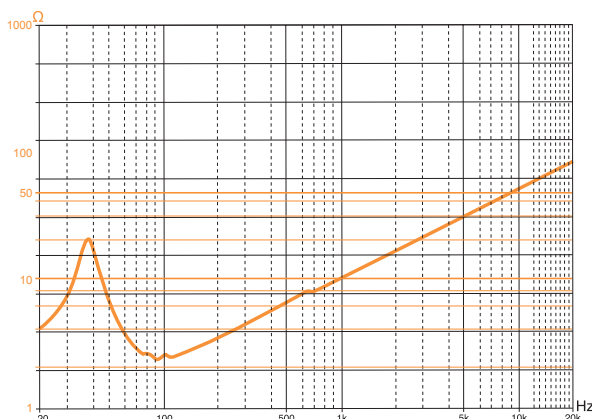
D	mm	250
Xmax	mm	10
Re	ohm	1,6
Fs	Hz	37,0
Le	mH@1kHz	1,47
Le	mH@10kHz	0,73
Vas	lit	35,10
Mms	gr	177,9
Cms	mm/N	0,10
BL	T-m	12,60
Qts		0,37
Qes		0,40
Qms		4,97
Spl (1m/2,83V)	dB	97



SUPERBASS

- High thermal dissipation and magnetic permeability plates.
- Double magnet motor.
- Superior "T" pole.
- Pure OFC copper double layer double voice coil with Kapton® former.
- Xponential Vented Hole® and lowered bottom plate for long mechanical excursions
- Water-repellent, non-pressed paper and carbon fibre injections cone.
- Venting Holes, improving dynamics and mobile voice coil cooling.
- Rubber surround for mobile voice coil long, linear excursion.
- CONEX® spider.
- Butylic Damping Cover, it dampens basket vibrations.
- Butyl rubber protective ring for vibrations dampening.
- Aluminium alloy, anti-resonant basket, with anti-scratch paint.
- High current, gold-plated binding posts.

### Impedance



## design HX 300 D

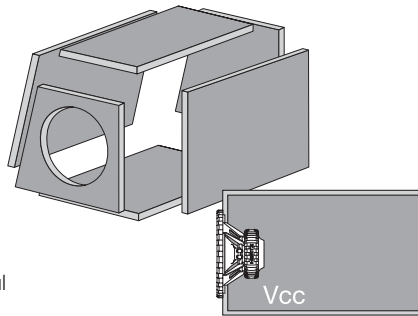
The speaker overall volume must be taken into account when designing a box: if the driver is mounted with its magnet facing the box inner part, add the volume indicated in the Technical Specifications (Total driver displacement) to total volume calculation.

The volumes of Reflex, Asymmetric Bandpass and Double Reflex projects include tubes and ports overall dimensions.

### Sealed Box

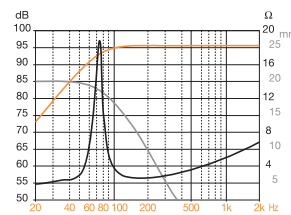
**Sealed Box 1:** It optimises overall dimensions as much as possible, for those who have space problems.

**Sealed Box 2:** It is the best compromise between size and performances; it insures powerful bass and good dynamics.



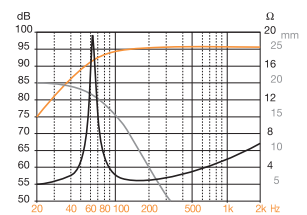
#### Sealed Box 1

**Vcc = 10 Lit**  
**Fc = 72 Hz**  
**F-3 = 60 Hz**



#### Sealed Box 2

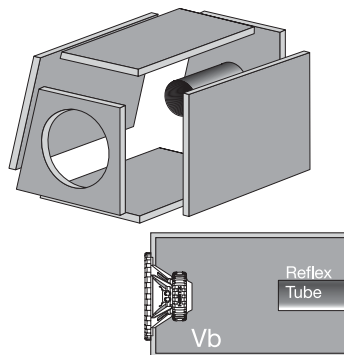
**Vcc = 15 Lit**  
**Fc = 62 Hz**  
**F-3 = 55 Hz**



### Reflex Box

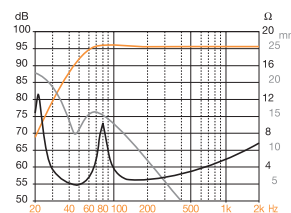
**Bass Reflex 1:** Its size is similar to Sealed Box 2 but it offers higher power handling and fast, wide sound.

**Bass Reflex 2:** The best compromise between size and performances; its bass is more bursting and dynamic than the one you get with the configurations mentioned above.



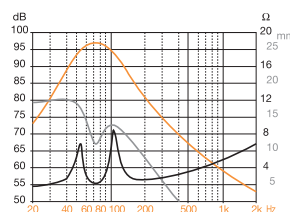
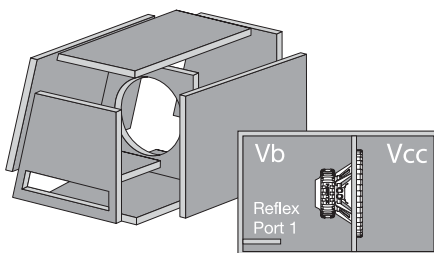
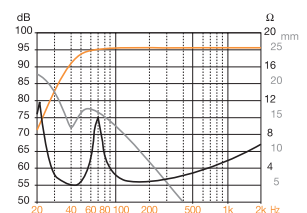
#### Reflex Box 1

**Vb = 15 Lit**  
**Fb = 45 Hz**  
**Reflex Tube**  
**Ø = 82 mm**  
**L = 310 mm**



#### Reflex Box 2

**Vb = 21 Lit**  
**Fb = 40 Hz**  
**Reflex Tube**  
**Ø = 82 mm**  
**L = 275 mm**

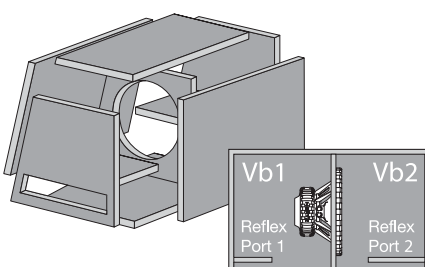


#### Asymmetric Bandpass

**Vcc = 9 Lit**  
**Vb = 13 Lit**  
**Fb = 73 Hz**  
**Reflex Port**  
**Sp = 112 cm<sup>2</sup>**  
**L = 250 mm**

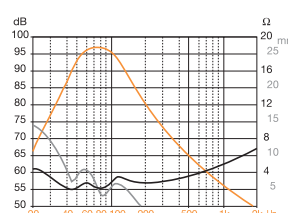
### Asymmetric Bandpass

It combines the qualities of the two previous projects with high power handling and fast, clear bass. Suitable to any kinds of music.



#### Double Reflex

**Vb1 = 11 Lit**  
**Fb1 = 84 Hz**  
**Reflex Port 1**  
**Sp = 125 cm<sup>2</sup>**  
**L = 250 mm**  
**Vb2 = 17 Lit**  
**Fb2 = 45 Hz**  
**Reflex Port 2**  
**Sp = 64 cm<sup>2</sup>**  
**L = 320 mm**



### Double Reflex

It is more difficult to build and bigger. It is the best solution to get very high SPL values and bursting, fast sound. Perfect for techno and disco music.