Technology and Art of Sound
Manufactured by elettromedia Italy

HERTZ

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SUBWOOFER

energy

ES 200

400 watt

Technical Specifications

Component		Subwoofer
Size	mm	200 (8")
Power Handling (Watt)	peak continuous program	400 200
Impedance	Ohm	4
Frequency response	Hz	30-400
Sensitivity	dB/SPL	91
Outer diameter	mm	214
Mounting hole diameter	mm	180
Magnet size	mm	120
Total depth	mm	115
Mounting depth	mm	104
Total driver displacement	lit	0,9
Weight of one component	kg	3,48
Voice coil diameter	mm	50
Magnet		Double magnet, High density ferrite
Cone		Water-repellent, pressed paper cone
Xmech*	mm	14,5

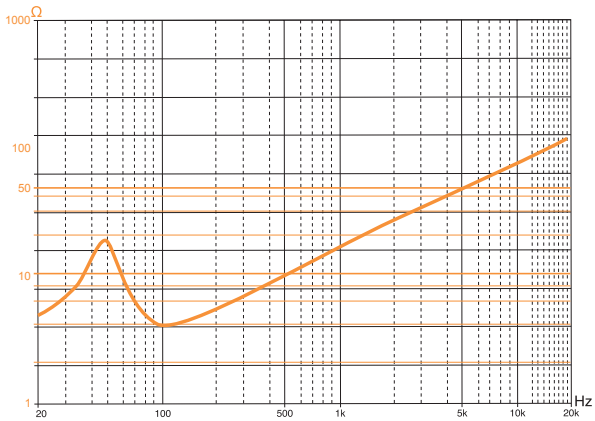
Electro-Acoustic Parameters

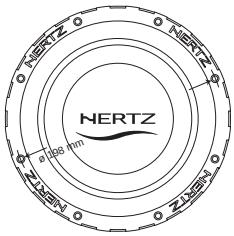
D	mm	165
Xmax	mm	9
Re	ohm	2,7
Fs	Hz	47
Le	mH@1kHz	2,42
Le	mH@10kHz	1,11
Vas	lit	7,86
Mms	gr	89,9
Cms	mm/N	0,12
BL	T-m	10,89
Qts		0,52
Qes		0,62
Qms		3,46
Spl (1m/2,83V)	dB	91

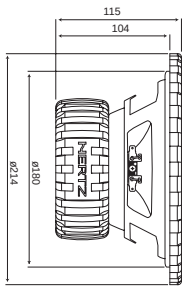
*** Xmech** maximum mechanic excursion: it indicates the motion range in the speaker linear functioning area, in both ways.

- High thermal dissipation and magnetic permeability plates.
- Big, high power double magnet.
- Pure copper voice coil, wound on Kapton former.
- Back vented hole.
- Butyl rubber gasket for mounting surfaces coupling.
- Butyl rubber protective ring.
- Internally reinforced basket, protected from abrasions by high resistance paint.
- High current, gold-plated terminals.
- Basket and motor are coupled and damped through special epoxy glue.
- Wide-wave, resin-bonded fibre spider.
- High density rubber surround, for mobile voice coil linear, long excursion.
- Water-repellent pressed paper cone.

Impedance







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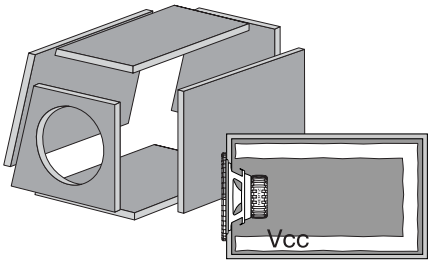
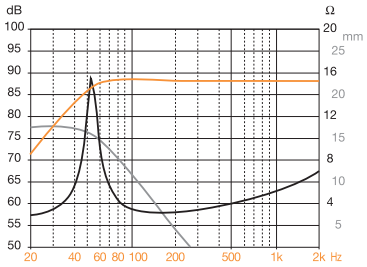
design es 200

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.

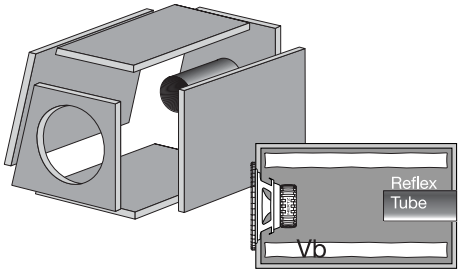
Sealed Box

It is the best compromise between size and performances; it insures powerful bass and good dynamics.





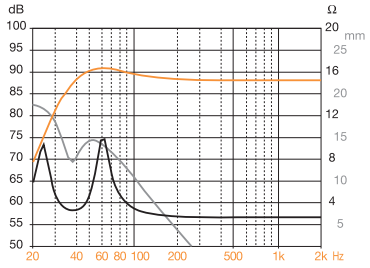
Sealed Box
Vcc = 15 Lit
Fc = 53 Hz
F-3 = 45 Hz



Reflex Box

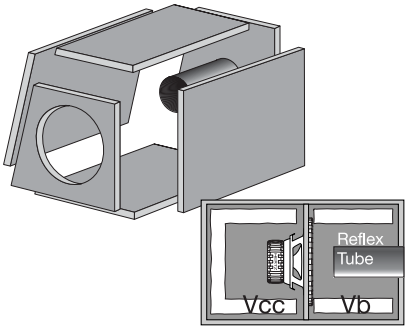
Bigger than Sealed Box, it permits to have better power handling and fast, wide sound.

Reflex Box
Vb = 19,5Lit
Fb = 37 Hz
Reflex Tube
Ø = 62 mm
L = 260 mm

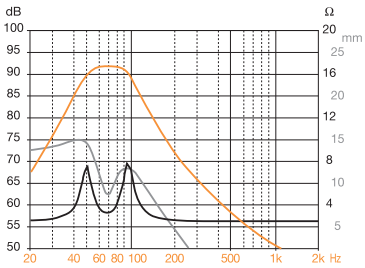


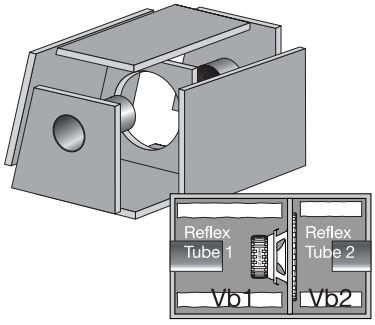
Asymmetric Bandpass

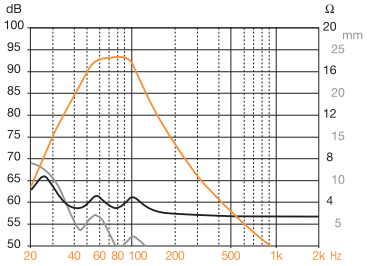
It combines the qualities of the two previous projects with high power handling and fast, clear bass. Suitable to any kinds of music.



Asymmetric Bandpass
Vcc = 7 Lit
Vb = 11 Lit
Fb = 68 Hz
Reflex Tube
Ø = 82 mm
L = 180 mm







Double Reflex
Vb1 = 9 Lit
Fb1 = 83 Hz
Reflex Tube 1
Ø = 82 mm
L = 140 mm
Vb2 = 16 Lit
Fb2 = 44 Hz
Reflex Tube 2
Ø = 62 mm
L = 190 mm

Double Reflex

It is more difficult to build and bigger. Perfect for techno and disco music.

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