

# THE SOUND EXPERIENCE

CATALOGUE

## HERTZ



2017

[www.hertzaudiovideo.com](http://www.hertzaudiovideo.com)

Technology *ArteSound*  
Manufactured by  
**elettromedia** Italy



**HERTZ**

The Sound Experience

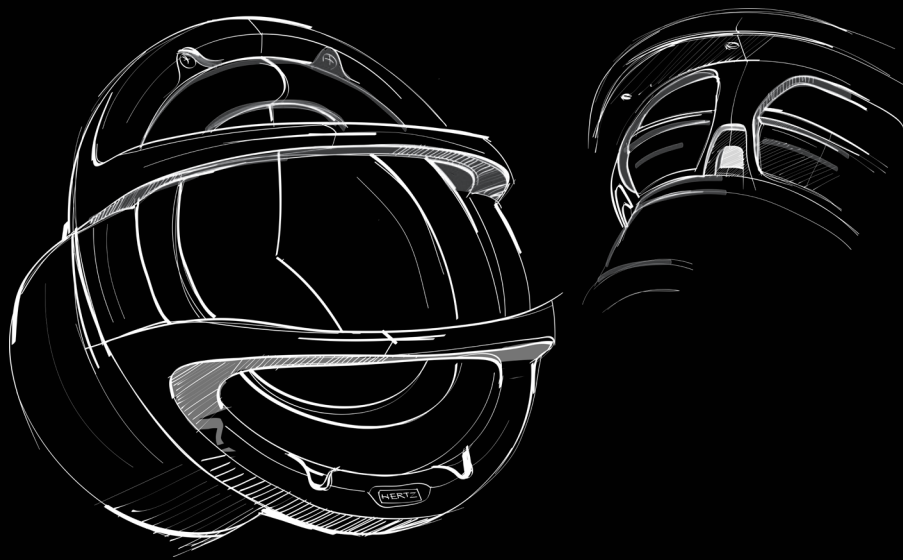




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The Sound Experience



**HERTZ, UNIT OF MEASUREMENT  
FOR SOUND FREQUENCY.**

# PERFORMANCE

The sound of the Hertz products  
generate emotions through  
**outstanding performances.**

# INNOVATION

**PASSION DRIVES RESEARCH.**

We focus on reaching the best performances  
in the real environment of application: the car.  
Passion for car audio is the essential driving  
force leading the Hertz engineers to win the  
neverending challenge of innovation using the  
most advanced technologies, always.



# HERTZ

## DESIGN

### ELEGANT LOOK, FINEST PERFORMANCE.

The design grows and evolves along with **acoustic features**. Each detail contributes to reach in-car listening pleasure, **the pleasure to own a Hertz product**.



### THE 'HERTZ SOUND EXPERIENCE' IS NOW DIGITAL!

HERTZ H8 DSP IS CAPABLE OF INTERFACING WITH ANY ANALOG AND/OR DIGITAL SOURCE, TRANSFORMING ORDINARY "AUDIO" INTO A HIGH-PERFORMANCE INTEGRATED SYSTEM.

Powered by



# SCAN, DISCOVER, IDENTIFY



EID TECHNOLOGY PROVIDES THE AUTHENTIC  
**"HERTZ SOUND EXPERIENCE"**





**eID is an exclusive technology** providing the traceability of the Hertz products from their birth on.

The **eID code**, linked to the serial number, is applied to the product once the QC checks are completed and assigned to the country/market of destination at the time of shipment.

Thanks to the **eID** technology the user can check the product technical, manufacturing, logistic information **by simply scanning the code** and proceeding with the **product registration**, to enjoy one additional year of warranty coverage\*.

eID gives the user the certainty of owning a **genuine Hertz product**, the only way to enjoy the original "Hertz Sound Experience".



*Video of eID technology*

# H8 DSP

The Sound Experience

## HIGH PERFORMANCE OEM INTEGRATION

Hertz H8 DSP is capable of interfacing with any analog and/or digital source, transforming ordinary "audio" into a high-performance integrated system. The simple and intuitive computer software ensures a wide array of adjustments to improve the acoustic response of a complex environment like the car cabin.

## ANALOG AND DIGITAL INPUTS

H8 DSP provides 7 signal inputs with different connection typologies: four high-level inputs, also accepting low-level pre-amplified signals; a stereo auxiliary input and an optical digital input accepting signals at sample rates up to 96/24 bit. The optical digital input (selectable from the DRC HE and from the "Optical / AUX select" terminal) nullifies interferences and degradations of the signal found in traditional analog interconnects, also by-passing the A/D conversion phases of analog signals.

## DE-EQUALIZATION

Thanks to the configuration Wizard provided by the software during the set-up, H8 DSP can automatically sum multiple filtered channels (for instance, woofer plus tweeter) and then "flatten" the equalized response curve of the OEM source. It can also reconstruct a centre, rear and/or subwoofer outputs with a simple stereo input. By reading the appropriate track on the provided test disc (CD), H8 DSP reconstructs a full-bandwidth signal, rectifying its frequency response, providing a "full bandwidth" signal ready for further processing.

## OUTPUTS

H8 DSP provides 8 PRE OUT analog outputs each one featuring: a 31 band equalizer, a 66 step electronic crossover with selectable Linkwitz-Riley or Butterworth alignment with selectable 6 – 24 dB adjustable slopes, digital time delay functions.

## DRC HE – DIGITAL REMOTE CONTROL

The optional DRC HE allows the control of the main system without the use of a PC. Installed in an ergonomic position within the car dashboard, the user can: choose between two "tuning" configurations pre-sets created and saved using the software; select the source from the master, auxiliary and optical digital inputs ; adjust main system functions (volume, balance, fader and subwoofer volume).

## POWERED BY BIT DRIVE TECHNOLOGY.

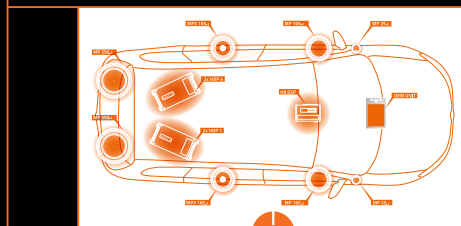
The firmware of the H8 DSP based upon Flash memory, can be updated at any time without having to disassemble the device from the system: the software checks on the available updates on the bit Drive portal (<http://bitdrive.it>) guiding the user through all of the upgrade phases. In addition, the user can manually force the update and proceed with a safe installation which can be retrieved even in case the update fails due to external accidental causes. By connecting the H8 DSP to the Audison bit Tune, you can automatically calibrate the basic parameters of the processors (time alignment, equalization, levels, etc.), ensuring an excellent level of acoustic performance. This phase also includes the diagnosis of common "errors" (channel inversion/phase, no signal on one channel/ cable, etc.) to set the specialist free from his "routine" work and allow him to focus on the art of "fine-tuning".



### OUTPUTS



### ANALOG AND DIGITAL INPUTS



HIGH PERFORMANCE  
OEM INTEGRATION

DRC HE - DIGITAL  
REMOTE CONTROL

DE-EQUALIZATION



## H8 DSP

DIGITAL INTERFACE  
PROCESSOR



## DRC HE

optional

Powered by



### POWER SUPPLY

Operating power supply voltage	10.8 ÷ 14.4 VDC
Power supply	7.5 ÷ 15 VDC
Idling current	0.4 A
Switched off without DRC	2.5 mA
Switched off with DRC	4 mA
Remote IN voltage	6.5 ÷ 15 VDC (1.3 mA)
Remote OUT voltage	12 VDC (130 mA)

### SIGNAL STAGE

Distortion - THD @ 1 kHz, 1V RMS Output	0.005%
Bandwidth @ -3 dB	10 ÷ 22k Hz
S/N Ratio @ A weighted	
Digital input	105 dBA
Master Input	95 dBA
AUX Input	96 dBA
Channel Separation @ 1 kHz	85 dB
Input sensitivity (Speaker In)	2 ÷ 15 V RMS
Input sensitivity (AUX In)	0.6 ÷ 5 V RMS
Input impedance (Speaker In)	2.2 kΩ
Input impedance (AUX)	15 kΩ
Max Output Level (RMS) @ 0.1% THD	4 V RMS

### INPUT STAGE

4 High Level (Speaker)	FL - FR - RL - RR
Low Level (Pre)	AUX IN
Digital Optical IN (S/PDIF max 96 kHz/24bit)	OPTICAL IN

### OUTPUT STAGE

8 Low Level Pre (default)	FRONT TW L/R, FRONT WF L/R REAR L/R, SUB, CENTER
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### CONNECTIONS

From / To Personal Computer	1 x USB / B
DRC HE	Audio controls and Memory / Inputs selection
Optical / AUX select	Optical In / Aux wire control + 12V / GND enable
Memory A / Memory B	Memory A / B wire control + 12V / GND enable

### CROSSOVER N.8 (one for each output channel)

Filter Type	Full / High Pass / Low Pass / Band Pass
Filter mode and slope	Linkwitz @ 12 / 24 dB Butterworth @ 6 / 12 / 18 / 24 dB
Crossover frequency	68 steps @ 20 ÷ 20k Hz
Phase control	0° ÷ 180°

### EQUALIZER

Hi-Level input (Speaker In)	Automatic De-Equalization
Outputs	8 Graphic: ±12 dB @ 31 Band ISO 1/3 Oct. 20 ÷ 20k Hz

### TIME ALIGNMENT

Distance	0 ÷ 510 cm / 0 ÷ 200.8 inch
Delay	0 ÷ 15 ms
Step	0.08 ms; 2.8 cm / 1.1 inch
Fine set	0.02 ms; 0.7 cm / 0.27 inch

### GENERAL REQUIREMENTS

PC connections	USB 1.1 / 2.0 / 3.0 Compatible
Software/PC requirements	Microsoft Windows (32/64 bit): XP, Vista, 7, 8, 10
Graphic card min. resolution	800 x 600
Ambient operating temperature range	0 °C to 55 °C (32°F to 131°F)

### SIZE

W (Width) x H (Height) x D (Depth) mm/inch	191 x 34 x 131 / 7.51" x 1.33" x 4.76"
Weight kg/lb	0.6 / 1.322



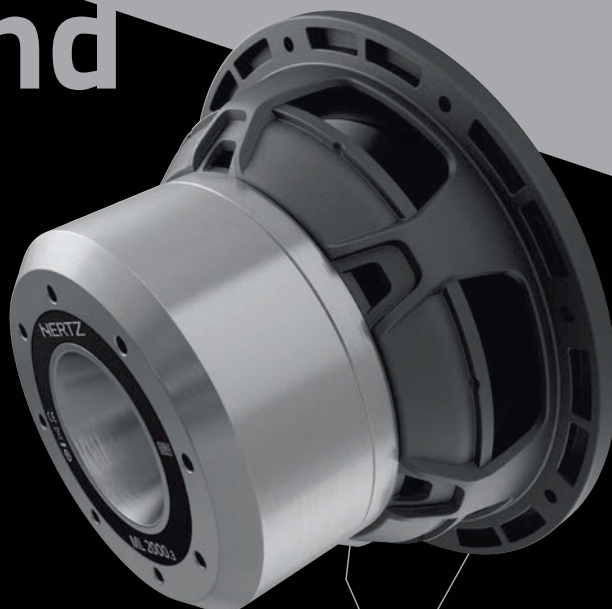
The Sound Experience

 **HERTZ**

CONTINUED EVOLUTION  
TO TURN INTO LEGEND.



# Mille Legend



## MILLE.3: 15 YEARS OF PURE EVOLUTION

**EXTREME DYNAMICS, UNLIMITED POWER  
HANDLING, REAL ACOUSTIC SCENE.**

ALL THE PARAMETERS HAVE BEEN REDEFINED  
TO A SUPERIOR LEVEL TO GIVE LIFE TO THE MAXIMUM  
EXPRESSION OF THE "HERTZ SOUND EXPERIENCE".  
MILLE.3 PROVIDES AN OVERALL LISTENING  
EXPERIENCE, TRANSFERRING THE EMOTIONS OF  
A **LIVE PERFORMANCE TO THE CAR ENVIRONMENT.**



# Mille

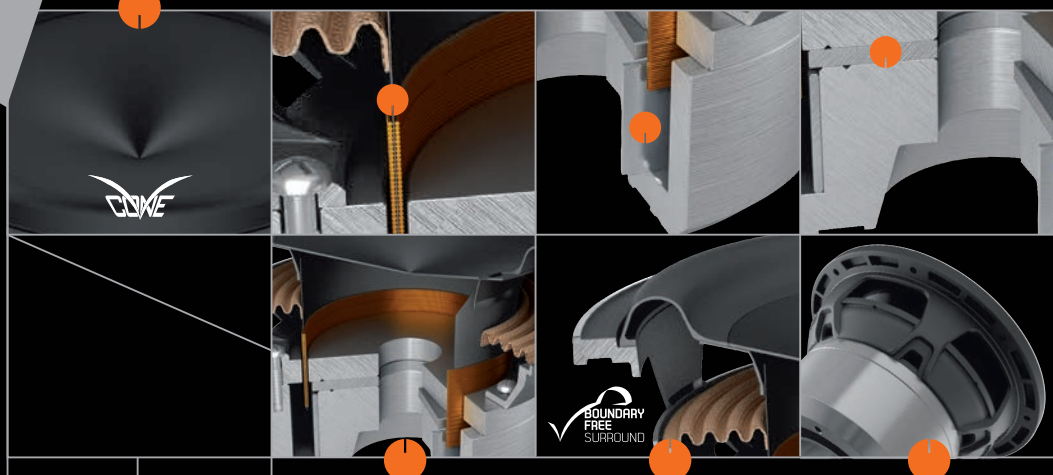
# Legend

V-CONE®

IN-OUT SUBWOOFER  
VOICE COIL

ALUMINIUM  
SHORTING RING

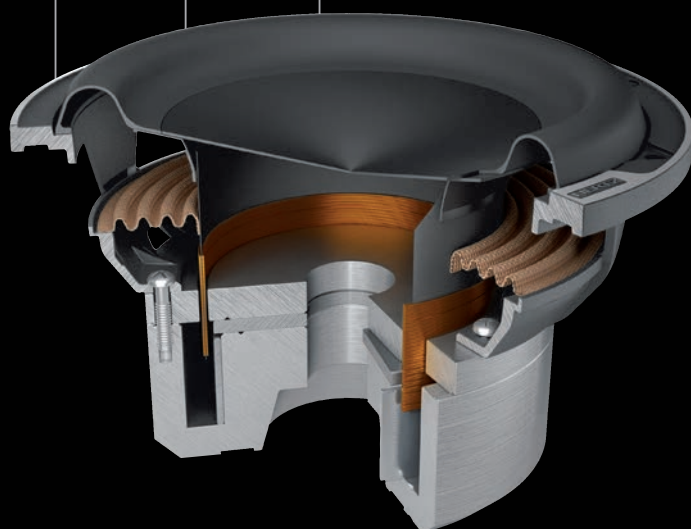
NEODYMIUM MAGNET



100 mm (4\")  
SUBWOOFER VOICE COIL

BOUNDARY FREE  
SURROUND

ALUMINIUM ALLOY BASKET



## V-CONE®

The V-cone® profile prevents the cone from deforming during its excursion, ensuring a "piston-like" movement, thus maximizing the production of acoustic pressure. The exponential profile, lacking the traditional dustcap, is close to perfection, generating exceptional dispersion at mid-high frequencies.

## IN-OUT SUBWOOFER VOICE COIL

Mille Legend subwoofers feature a new voice coil winding process called "In/Out". This technique consists in winding one layer of the voice coil outside of the former and one layer inside of the former so that the two layers are magnetically, mechanically and thermally symmetric, characteristics impossible to achieve with the traditional voice coil multi-layer winding process. Thanks to the "In/Out" wound voice coil, Mille Legend subwoofers are capable of dissipating over 700W RMS / 1500W Peak Power; the unique feature of the In/Out voice coil is its capability of cooling down fast while reproducing high energy content bass transients, ensuring very low Dynamic Compression, which is essential to re-create the same emotions of a Live musical performance.

## ALUMINIUM SHORTING RING

The Hertz electro-acoustic designers developed a technology tailor-made for the Mille Legend line called "Aluminium Shorting Ring". An aluminium ring is employed to reduce the "modulated inductance" phenomenon, instead of the traditional shorting copper ring. The great advantage of the aluminium ring, compared to a copper ring, is that it allows air gap reduction, increasing the motor energy transferred to the voice coil resulting in the most accurate reproduction of musical nuances.

## NEODYMIUM MAGNET

The motor assembly expands around a high thermal threshold Neodymium ring with unique sizes. It works immersed in a magnetic structure optimized for the best flux symmetry in the air gap, achieving amazing magnetic strength values and ensuring absolute thermal stability, bursting dynamics and total absence of dynamic compression.

## 100 mm (4\") SUBWOOFER VOICE COIL

The Hertz electro-acoustic designers adopted a CCAW (Copper Clad Aluminium Wire) 100 mm (4\") voice coil for the Mille Legend subs, to ensure unparalleled heat dissipation capability compared to the average subs that mount voice coils with considerably smaller diameter – 50 or 65 mm (2\" or 2 and 1/2\"). A larger voice coil diameter also ensures better stability of the mobile equipment during extended excursions, avoiding undesired resonances, such as the well known "rocking mode".

## BOUNDARY FREE SURROUND

This particular surround geometry provides the ability to achieve wider emission surface of the cone compared to speakers' traditional surround design of the same size; in that way, the cone moves a bigger mass of air, producing more acoustic pressure. Highly pure IIR butyl rubber material has been accurately selected, ensuring optimal transient response damping and constant performance through wide working temperature range.

## ALUMINIUM ALLOY BASKET

The compact anti-resonant alloy basket features decompression of the air volume below the spider through venting holes. When these are combined with the motor vented system, they allow the cone to move as free as it needs making long excursions, eliminating every distortion due to acoustic compression phenomena. The structure self-standing geometry adds to the overall mechanical damping, resulting absolutely transparent to sound.





LEGEND

1400 W

**ML 2000.3**  
SUBWOOFER



LEGEND

1400 W

**ML 2500.3**  
SUBWOOFER



**MLG 2000.3**  
**MLG 2500.3**  
optional grille



SUB specifications	Size mm (in.)	Power Handling W		Imp. $\Omega$	Sensitivity dB/SPL	$\varnothing$ Voice Coil mm (in.)	Magnet	Cone	X-mech mm (in.)
		Peak	Cont. program						
<b>ML 2000.3</b>	200 (8)	1400	700	4	86	100 (4)	Neodymium	Mineral-injected paper	23 (0.9)
<b>ML 2500.3</b>	250 (10)	1400	700	4	88	100 (4)	Neodymium	Mineral-injected paper	27 (1.06)

# Mille

# Legend

V-CONE®

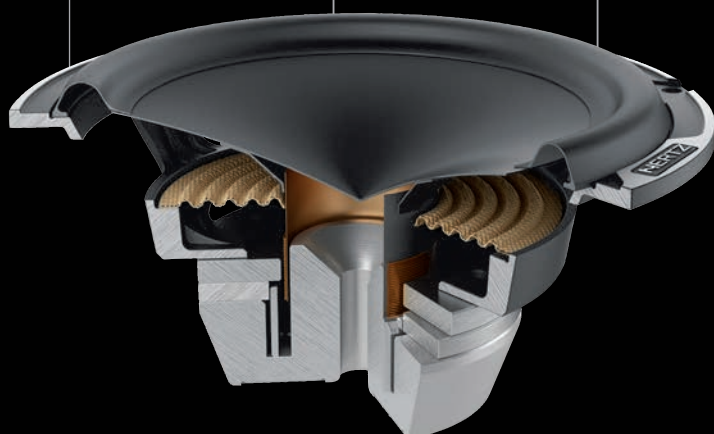
NEODYMIUM MAGNET

36/50 mm (1.4" / 2")  
WOOFER VOICE COIL

ALUMINIUM  
SHORTING RING

BOUNDARY FREE  
SURROUND

ALUMINIUM ALLOY BASKET



## V-CONE®

The V-cone® profile prevents the cone from deforming during its excursion, ensuring a "piston-like" movement, thus maximizing the production of acoustic pressure. The exponential profile, lacking the traditional dustcap, is close to perfection, generating exceptional dispersion at mid-high frequencies.

## NEODYMIUM MAGNET

The motor assembly expands around a high thermal threshold Neodymium ring with unique sizes. It works immersed in a magnetic structure optimized for the best flux symmetry in the air gap, achieving amazing magnetic strength values and ensuring absolute thermal stability, bursting dynamics and total absence of dynamic compression.

## 36/50 mm (1.4" / 2") WOOFER VOICE COIL

To ensure extraordinary power handling and very low dynamic compression, even with tracks including numerous bass frequencies, Mille Legend Woofers feature extraordinary large mobile voice coil. ML 1650.3 Legend mounts a 36 mm (1.4") voice coil to ensure the best compromise between power handling and mid-high frequency response. ML 1800.3 Legend employs a specific CCAW (Copper Clad Aluminium Wire) 50 mm (2") diameter mobile voice coil, designed to provide an extended frequency response down to the first octaves of the audio spectrum.

## ALUMINIUM SHORTING RING

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## BOUNDARY FREE SURROUND

This particular surround geometry provides the ability to achieve wider emission surface of the cone compared to speakers' traditional surround design of the same size; in that way, the cone moves a bigger mass of air, producing more acoustic pressure. Highly pure IIR butyl rubber material has been accurately selected, ensuring optimal transient response damping and constant performance through wide working temperature range.

## ALUMINIUM ALLOY BASKET

The compact anti-resonant alloy basket features decompression of the air volume below the spider through venting holes. When these are combined with the motor vented system, they allow the cone to move as free as it needs making long excursions, eliminating every distortion due to acoustic compression phenomena. The structure self-standing geometry adds to the overall mechanical damping, resulting absolutely transparent to sound.



grille included

LEGEND

**ML 1650.3**  
COMP WOOFER  
250 W



grille included

LEGEND

**ML 1800.3**  
COMP WOOFER  
400 W



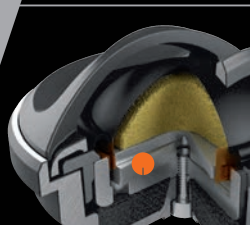
From R&D to  
final product  
**KLIPPEL**  
since 2005

COMP specifications	Size mm (in.)	Power Handling W		Imp. Ω	Freq. Resp. Hz	Sensitivity dB/SPL	Ø Voice Coil mm (in.)	Magnet	Cone
		Peak	Cont. program						
<b>ML 1650.3</b>	165 (6.5)	250	125	4	40 ÷ 6.5k	93	36 (1.4)	Neodymium	Pressed-pulp cone with cotton fibers
<b>ML 1800.3</b>	180 (7)	400	200	4	38 ÷ 6k	93	50 (2)	Neodymium	Pressed-pulp cone with cotton fibers

# Mille

# Legend

**NEODYMIUM  
MAGNET**



**DIE-CAST ALUMINIUM  
CASE TWEETER**



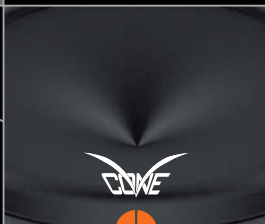
**TETOLON FIBER  
DOME TWEETER**



**DIE-CAST ALUMINIUM  
FACE PLATE TWEETER**



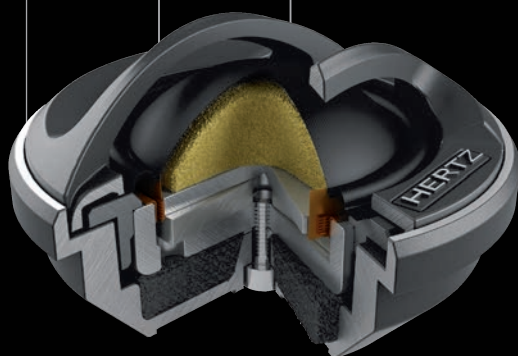
**V-CONE®**



**BOUNDARY FREE  
SURROUND**



**ALUMINIUM ALLOY BASKET**



## NEODYMIUM MAGNET

The motor assembly expands around a high thermal threshold Neodymium ring with unique sizes. It works immersed in a magnetic structure optimized for the best flux symmetry in the air gap, achieving amazing magnetic strength values and ensuring absolute thermal stability, bursting dynamics and total absence of dynamic compression.

## DIE-CAST ALUMINIUM CASE TWEETER

The tweeter case is made up of die-cast aluminium, for a mechanically inert, acoustically transparent structure. The rear acoustic chamber has been optimized achieving 50% increase in overall volume, to extend response to lower frequency ranges with 900Hz resonance frequency.

## TETOLON FIBER DOME TWEETER

Tetolon Fiber dome tweeter optimized for very low distortion and improved dispersion in higher frequency ranges, providing harmonic yet detailed sound.

## DIE-CAST ALUMINIUM FACE PLATE TWEETER

Die-cast aluminium tweeter faceplate with profile optimized with FEA simulations to improve frequency response linearity and off-axis dispersion.

## V-CONE®

The V-cone® profile prevents the cone from deforming during its excursion, ensuring a "piston-like" movement, thus maximizing the production of acoustic pressure. The exponential profile, lacking the traditional dustcap, is close to perfection, generating exceptional dispersion at mid-high frequencies.

## BOUNDARY FREE SURROUND

This particular surround geometry provides the ability to achieve wider emission surface of the cone compared to speakers' traditional surround design of the same size; in that way, the cone moves a bigger mass of air, producing more acoustic pressure. Highly pure IIR butyl rubber material has been accurately selected, ensuring optimal transient response damping and constant performance through wide working temperature range.

## ALUMINIUM ALLOY BASKET

The compact anti-resonant alloy basket decompression of the air volume below the spider through venting holes. When these are combined with the motor vented system, they allow the cone to move as free as it needs making long excursions, eliminating every distortion due to acoustic compression phenomena.



## LEGEND



**ML 280.3**  
COMP TWEETER  
180 W



grille included

## LEGEND

**ML 700.3**  
COMP MIDRANGE  
100 W



From R&D to  
final product  
**KLIPPEL**  
since 2005

COMP specifications	Size mm (in.)	Power Handling W Peak	Imp. $\Omega$	Freq. Resp. Hz	Sensitivity dB/SPL	Ø Voice Coil mm (in.)	Magnet	Dome/Cone
<b>ML 280.3</b>	35 (1.38)	180 (Hi-Pass filtered @ 1,8kHz - 12dB Oct.)	4	1k ÷ 28k	92	28 (1.1)	Neodymium	Tetolon fiber
<b>ML 700.3</b>	70 (3)	100 (Hi-Pass filtered @ 250Hz - 12dB Oct.)	4	200 ÷ 20k	90	20 (0.8)	Neodymium	Pressed-pulp cone with cotton fibers

# Mille

# Legend

WIDE ARRAY  
OF CONTROL

BI-AMPLIFICATION

EXTREMELY HIGH QUALITY  
COMPONENTS

LEGEND

**MLCX 2 TW.3**  
CROSSOVER  
300 W

#### WIDE ARRAY OF CONTROL

Mid-Contour and Hi-Contour controls on MLCX 2 TW.3 are dedicated to the management of the woofer and tweeter cut-off frequency respectively to optimize the cross-point. Through each of these two Contour controls, featuring a two-position selector, the system frequency response can be fine-tuned according to woofer/tweeter location in the car. Contour controls also provide the ability of setting up a two-way system with ML 1650.3 Legend or ML 1800.3 Legend woofers. Two additional controls have been dedicated to the tweeter: a three-position control for its emission level with 2 dB steps (+2/0/-2dB) attenuation and the Hi-Boost, a two-position selector providing the ability to emphasize the tweeter response beyond the 10kHz.

#### BI-AMPLIFICATION

Through a solidly built switch, the MLCX 2 TW.3 crossover enables the creation of a bi-wired or bi-amplified system, providing the possibility to drive woofer and tweeter separately. With bi-amplified configuration the significant power increase highlights all the features of a speakers system, with the benefits coming from the multi-amplification.

#### EXTREMELY HIGH QUALITY COMPONENTS

160V bi-metallized polyester film capacitors with ultra-low DF, for maximum sound transparency and neat mid/hi-frequencies. Air wound inductors built on pure copper-wire with up to 1mm diameter, for high saturation threshold of the magnetic flux and limited losses on the woofer section where high transient currents are required. High power rating Wirewound resistors, to ensure performance stability even at high operating temperature.

From R&D to  
final product  
**KLIPPEL**  
since 2005

CROSSOVER specifications	Size mm (in.)	Specific Components	Power Handling W		Crossover Type	Cut-off frequency	Adjustment
			Peak	Continuous			
<b>MLCX2 TW.3</b>	195 x 119 x 41 (7.67 x 4.68 x 1.61)	ML 280.3 ML 1650.3 ML 1800.3	300	150	Lo-pass 6 dB Oct. Hi-pass 12 dB Oct.	2.5 kHz (Mid/Hi-Cont. = ON) 3.5 kHz (Mid/Hi-Cont. = OFF)	Tweeter +2 / 0 / -2 dB Hi-Boost ON / OFF Hi-Contour ON / OFF Mid-Contour ON / OFF Bi-Amp ON / OFF



ML 1650.3  
ML 700.3  
ML 165.3



LEGEND



**MLK 1650.3**  
2 WAY SYSTEM  
300 W

included

LEGEND



**MLK 165.3**  
2 WAY SYSTEM  
300 W

included

LEGEND



**MLK 700.3**  
2 WAY SYSTEM  
200 W

included



SYSTEM specifications	Size mm (in.)			Power Handling W		Imp. $\Omega$	Freq. Resp. Hz	Sensitivity dB/SPL	Crossover included	Adjustment
	Woofer	Midrange	Tweeter	Peak	Continuous					
<b>MLK 1650.3</b>	<b>ML 1650.3</b> 165 (6.5)	-	<b>ML 280.3</b> 35 (1.38)	300	150	4	40 ÷ 28k	93	MLCX 2 TW.3	Tweeter +2 / 0 / -2 dB Hi-Boost ON / OFF Hi-Contour ON / OFF Mid-Contour ON / OFF Bi-Amp ON / OFF
<b>MLK 165.3</b>	<b>ML 165.3</b> 165 (6.5)	-	<b>ML 28.3</b> 35 (1.38)	300	150	4	40 ÷ 25k	92	MLCX 165.3	Tweeter +2 / 0 / -2 dB Hi-Contour ON / OFF
<b>MLK 700.3</b>	-	<b>ML 700.3</b> 70 (3)	<b>ML 280.3</b> 35 (1.38)	200	100	4	200 ÷ 28k	90	MLCX2TM.3	Tweeter Level +2 / 0 / -2 dB Mid-Notch 0 / -4 / -6 dB





The Sound Experience

 **ERTZ**

PASSION FOR  
INNOVATION,  
LOVE FOR MUSIC



# Pro Mille



**MILLE PRO** SPEAKERS ARE DEDICATED TO THE ENTHUSIASTS YEARNING FOR THE AUTHENTIC **HERTZ MILLE LISTENING EXPERIENCE**, GENERATING EMOTIONS AND RE-SETTING PERFORMANCE LEVELS WITHIN THEIR PRODUCT CLASS.



[www.hertzaudiovideo.com](http://www.hertzaudiovideo.com)

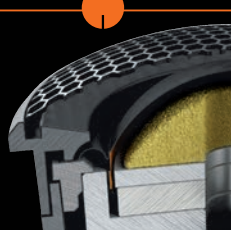
# Mille

# Pro

V-CONE®



FEM OPTIMIZED  
FACEPLATE



ALUMINIUM ALLOY BASKET



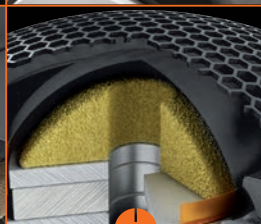
3Ω



BOUNDARY FREE  
SURROUND



CENTER TUNING DUCT  
TWEETER GEOMETRY



3 Ω IMPEDANCE,  
LONG THROW VOICE COIL

BOUNDARY FREE  
SURROUND



## V-CONE®

V-CONE® The exponential V-cone® of Mille PRO woofers combines stiffness and lightweight for wide frequency response. Its profile prevents the cone from deforming during its excursion, ensuring a "piston-like" movement, maximizing the production of acoustic.

## BOUNDARY FREE SURROUND

This unique surround geometry of Mille PRO woofers and coaxials provides the ability to achieve wider emission surface of the cone compared to speakers' traditional surround design of the same size; in that way, the cone is capable of moving a bigger mass of air, producing higher acoustic pressure. Highly pure butyl rubber material has been accurately selected, ensuring optimal transient response damping ratio and constant performance through a wide operating temperature range.

## ALUMINIUM ALLOY BASKET

The compact anti-resonant alloy basket features decompression of the air volume below the spider through venting holes. When these are combined with the motor vented system, they allow the cone to move as free as it needs making long excursions, eliminating every distortion due to acoustic compression phenomena. The structure self-standing geometry adds to the overall mechanical damping, resulting absolutely transparent to sound.

## 3 Ω IMPEDANCE, LONG THROW VOICE COIL

Mille PRO woofers have been equipped with a generous voice coil winding height up to 14mm in MP 165P.3, guaranteeing low intermodulation distortion in the vocals while playing high excursion bass transients. MP 165P.3 employs a 3 Ω nominal impedance voice coil providing the ability to maximally exploit the power of the Hertz HCP and HDP amplifiers as well as all the 2 Ω stable electronics. Mille PRO coaxials feature a 36 mm (MPX 165) / 38 mm (MPX 690) double layer voice coil to ensure extraordinary power handling and very low dynamic compression even with tracks including numerous bass frequencies.

## CENTER TUNING DUCT TWEETER GEOMETRY CONCENTRIC COAXIAL TWEETER

The "Center Tuning Duct" technology ensures perfect exchange of air between dome and rear load chamber, fine-tuning the MP 25 tweeter acoustics to perfection. The resulting very low resonance frequency is also functional to a lower crossover point with the woofer, elevating the sound stage. The 20mm Tetolon fiber soft dome Concentric coaxial tweeter built in the MPX 165.3 woofer voice coil provides one single point of emission, re-creating the virtual sound-stage as in live music performances.

## FEM OPTIMIZED FACEPLATE & ACOUSTIC LENS

The MP 25 and MP 690.3 faceplates have been refined with FEM (Finite Element Modeling) simulations, to provide excellent 90° off-axis frequency response.

The acoustic lens employed on MPX 165.3 optimizes its off-axis response, typical of coaxial speakers door installations.



PRO

**MP 165.3**  
COMP WOOFER  
180 W



PRO

**MP 165P.3**  
COMP WOOFER  
200 W



**MPG 165.3**  
optional grille



COMP specifications	Size mm (in.)	Power Handling W		Imp. Ω	Freq. Resp. Hz	Sensitivity dB/SPL	Ø Voice Coil mm (in.)	Magnet	Cone
		Peak	Cont. program						
<b>MP 165.3</b>	165 (6.5)	180	90	4	40 - 5k	93	25 (1)	High density flux ferrite	Pressed-pulp cone with cotton fibers
<b>MP 165P.3</b>	165 (6.5)	200	100	3	45 - 4.5k	94	25 (1)	High density flux ferrite	Pressed-pulp cone with cotton fibers

# Mille

# Pro

PRO

## MP 25.3 COMP TWEETER 120 W



Mounting Accessories provided with  
MP 25.3, MPK 130.3, MPK 165.3,  
MPK 165P.3, MPK 163.3.

PRO

## MP 70.3 COMP MIDRANGE 100 W



grille included



PRO

## MPCX 2 TM.3 CROSSOVER



### MPCX 2TM.3 – THREE WAY APPLICATION CROSSOVER

Passive crossover specifically developed for MP 70.3 and MP 25.3 when installed in a 3-way multi-amplification system and combined with an MP 165.3/MP 165P.3 woofer actively driven. Two-position switch for tweeter level adjustment is provided to fine-tune the transducers emission.

### EXTREMELY HIGH QUALITY COMPONENTS

100V bi-metallized polyester film capacitors with ultra-low DF, for maximum sound transparency. Pure copper air wound inductors providing very linear yet natural mid-high frequency acoustic reproduction.

From R&D to  
final product  
**KLIPPEL**  
since 2005

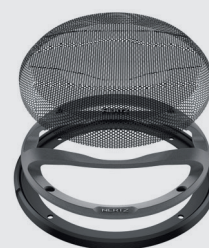
COMP specifications	Size mm (in.)	Power Handling W	Imp. $\Omega$	Freq. Resp. Hz	Sensitivity dB/SPL	$\varnothing$ Voice Coil mm (in.)	Magnet	Dome (MP 25.3) Cone
		Peak						
MP 25.3	29 (1.14)	120 (Hi-Pass filtered @ 2,5kHz - 12dB Oct.)	4	1.4k - 22.5k	91	25 (1)	Neodymium	Tetolon fiber
MP 70.3	70 (3)	100 (Hi-Pass filtered @ 250Hz - 12dB Oct.)	4	180 - 18k	88	20 (0.79)	Neodymium	Pressed-pulp cone with cotton fibers

CROSSOVER specifications	Size mm (in.)	Specific Components	Crossover Type	Cut-off frequency	Adjustment
MPCX 2 TM.3	102 x 76.5 x 37 (4.02 x 3.01 x 1.46)	MP 25.3 MP 70.3	Lo-pass 6 dB Oct. Hi-pass 12 dB Oct.	5.5 kHz	Tweeter Level 0 / +2 dB



PRO

**MPX 165.3**  
2 WAY COAXIAL  
200 W



optional grille

PRO

**MPX 690.3**  
3 WAY COAXIAL  
260 W



included



COAX specifications	Size mm (in.)			Power Hand. W		Imp. $\Omega$	Freq. Resp. Hz	Sens. dB/SPL	Magnet	Woofer/Cone	Tweeter/Dome
	Woofer	Tweeter	Supertweeter	Peak	Cont.						
<b>MPX 165.3</b>	165 (6.5)	25 (1)	-	200	100	4	45 - 21.5k	92	High density flux ferrite / Neodymium	Pressed-pulp cone with cotton fibers	Tetolon
<b>MPX 690.3</b>	(6 x 9)	35 (1.5)	29 (1.14)	260	130	4	30 - 24k	94			

# Mille

# Pro

PRO



PRO



PRO



SYSTEM specifications	Size mm (in.)			Power Handling W		Imp. Ω	Freq. Resp. Hz	Sensitivity dB/SPL	Crossover included	Adjustment
	Woofer	Midrange	Tweeter	Peak	Continuous					
MPK 165.3	MP 165.3 165 (6.5)	-	MP 25.3 29 (1.14)	220	110	4	40 ÷ 22,5k	92	MPCX 2.3	Tweeter Level 0 / +2 dB
MPK 165P.3	MP 165P.3 165 (6.5)	-	MP 25.3 29 (1.14)	230	115	3	45 ÷ 22,5k	93	MPCX 2P.3	Tweeter Level 0 / +2.5 dB
MPK 1650.3	MP 165P.3 165 (6.5)	-	MP 28.3 35 (1.38)	250	125	3	45 ÷ 25k	93.5	MPCX 165.3	Tweeter Level 0 / +2.5 dB

PRO



**MPK 130.3**  
2 WAY SYSTEM  
200 W

included

PRO



**MPK 163.3**  
3 WAY SYSTEM  
300 W

included



MP 165.3  
MP 165P.3  
MP 130.3  
MP 70.3



SYSTEM specifications	Size mm (in.)			Power Handling W		Imp. $\Omega$	Freq. Resp. Hz	Sensitivity dB/SPL	Crossover included	Adjustment
	Woofer	Midrange	Tweeter	Peak	Continuous					
<b>MPK 130.3</b>	<b>MP 130.3</b> 130 (5)	-	<b>MP 25.3</b> 29 (1.14)	200	100	4	60 $\div$ 22,5k	91	MPCX 2.3	Tweeter Level 0 / +2 dB
<b>MPK 163.3</b>	<b>MP 165.3</b> 165 (6.5)	<b>MP 70.3</b> 70 (3)	<b>MP 25.3</b> 29 (1.14)	300	150	4	40 $\div$ 22,5k	92	MPCX 3.3	Tweeter Level 0 / +2 dB Midrange level 0 / +2 dB

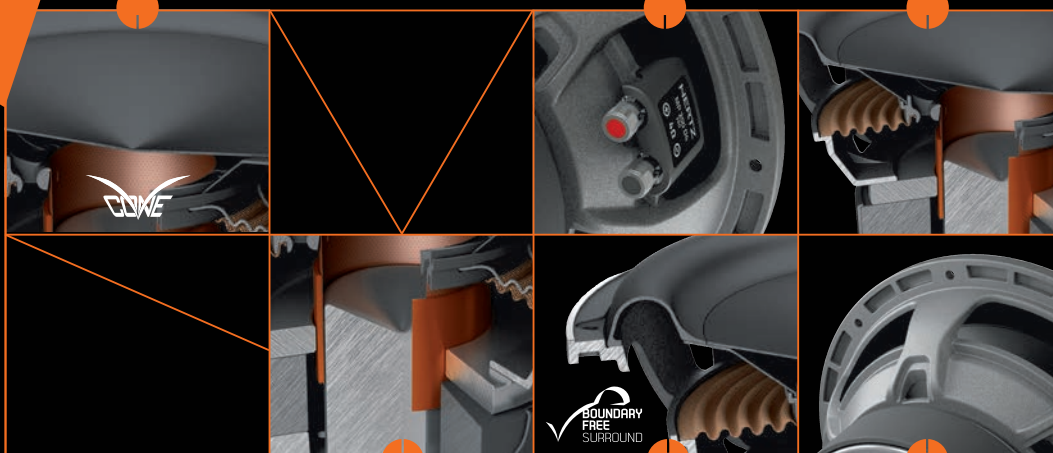
# Mille

# Pro

V-CONE®

SOLID PUSH CONNECTOR

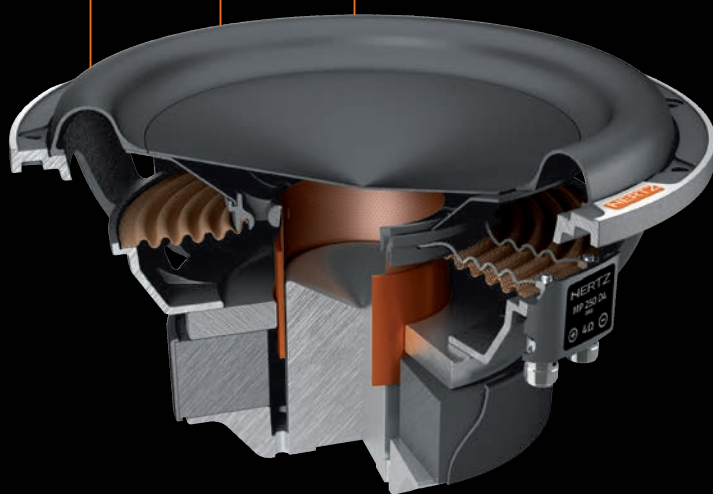
VENTILATION SYSTEM



65-MM 4-LAYER  
VOICE COIL

BOUNDARY FREE  
SURROUND

ALUMINIUM ALLOY BASKET



## DESIGN

Outstanding performance in a compact size, this is Mille Pro Subwoofers target. On the strength of its know-how acquired with Mille Legend, the R&D team has optimized the production process to offer the "Hertz Sound Experience" to a wider audience using part of the technologies and materials of the flagship line.

## V-CONE®

The Mille Pro cone is made by pressing paper pulp with the injection of mineral powders, the same construction technique used for Legend. The V-cone® profile increases rigidity, allowing the cone to function like a piston.

## BOUNDARY FREE SURROUND

Like the Legend ML2000.3 and ML2500.3, the Mille PRO subwoofers are built with Boundary Free Surround technology allowing for a greater emission surface with equal diameter, generating higher sound pressure.

## ALUMINIUM ALLOY BASKET

The compact 6-spoke aluminium alloy anti-resonant basket is the same as the top model ML2500.3 and contributes to the subwoofer's mechanical damping, being absolutely transparent to the sound.

## 65-MM 4-LAYER VOICE COIL

The 65-mm 4-layer voice coil is higher than 60 mm and wound in a TIL-P former, thus delivering high linear displacement. The air cooling and decompression system avoids the need for a centre hole on the bottom plate and provides a better thermal inertia to ensure low operating temperatures during musical transients. Thanks to the lack of a centre hole the subwoofer can be installed right on the box wall, taking full advantage of its minimal dimensions. A damping rubber disk, provided with the product, secures the subwoofer to the box and ensures air exchange for the 10 vents on the bottom.

## VENTILATION SYSTEM

The holes behind the voice coil winding and the 10 vents on the bottom plate ensure greater air exchange to the coil inner layers and work in synergy with an innovative assembly system. It forces the air to pass through the air gap to keep the coil operating temperature low, even with the most extreme musical programs.

## SOLID PUSH CONNECTOR

The terminal uses solid push connectors with an anti-short circuit cover accepting cables up to 8 AWG to provide ultra-low wiring resistance in low impedance configurations (1ohm). The chart shows the connection diagram for each impedance configuration.





PRO

1200 W

**MP 250 D2.3**  
**MP 250 D4.3**  
SUBWOOFER



PRO

1200 W

**MP 300 D2.3**  
**MP 300 D4.3**  
SUBWOOFER



**MPG 250**  
**MPG 300**  
optional grille



SUB specifications	Size mm (in.)	Power Handling W		Imp. $\Omega$	Sensitivity dB/SPL	$\varnothing$ Voice Coil mm (in.)	Magnet	Cone	X-mech mm (in.)
		Peak	Cont. program						
<b>MP 250 D2.3</b>	250 (10)	1200	600	2+2	83,5	65 (2.5)	High density flux ferrite	Pressed-pulp cone with mineral powders	27 (1.06)
<b>MP 250 D4.3</b>				4+4					
<b>MP 300 D2.3</b>	300 (12)	1200	600	2+2	85,5	65 (2.5)	High density flux ferrite	Pressed-pulp cone with mineral powders	27 (1.06)
<b>MP 300 D4.3</b>				4+4					

# HERTZ

## ADC (ADVANCED D-CLASS TECHNOLOGY)

The new ADC technology ensures hi-end acoustic performance with unmatched power efficiency.

## LEDS STATUS DISPLAY

The advanced LEDs system monitors the amplifiers' status in real time pointing out any possible faults. This information allows the user to identify any errors and to prevent damages to the system.



## MAXIMUM VERSATILITY

The filters combination adopted for the Mille Power amplifiers is extremely flexible and ensures they can be used in any configuration. The control panel, accessible from the top, allows for effortless settings for an accurate sound tuning.

## UNPARALLELED EFFICIENCY

The heat sink, engineered with double technology, extrusion and aluminum die-casting, enables the Mille Power amplifiers to work constantly at full power without ever overheating, maximizing thermal efficiency.

# Mille Power



## HI-END PERFORMANCE WITH ULTIMATE TECHNOLOGY

MILLE POWER AMPLIFIERS ARE BORN TO FULLY ENHANCE THE OUTSTANDING PERFORMANCE OF THE MILLE SPEAKERS. THE NEW IMPLEMENTED TECHNOLOGY ENSURES PURE LISTENING PLEASURE WHILE KEEPING A COMPACT SIZE AND PROVIDING EXTREME FLEXIBILITY.





Mille

# Power

The Sound Experience

1000 W MAX POWER

## ML POWER 1

D-CLASS MONO  
AMPLIFIER



1000 W MAX POWER

## ML POWER 4

D-CLASS  
FOUR CHANNEL  
AMPLIFIER



## HRC BM

REMOTE CONTROL  
BASS MANAGEMENT  
optional

950 W MAX POWER


## ML POWER 5

D-CLASS  
FIVE CHANNEL  
AMPLIFIER



**ADC**  
ADVANCE D-CLASS

### AMP specifications

			ML POWER 1	ML POWER 4	ML POWER 5
Channel Mode			1	4 - 3 - 2	5 - 3
Output Power (RMS) @ 14.4 VDC	@ 4Ω	W x ch	600 x 1	150 x 4	70 x 4 + 380 x 1
	@ 2Ω	W x ch	1000 x 1	250 x 4	100 x 4 + 550 x 1
	@ 1Ω	W x ch	1000 x 1	-	-
	@ 4Ω	W x ch (3 ch)	-	150 x 2 + 500 x 1	-
	@ 2Ω + 4Ω	W x ch (3 ch)	-	250 x 2 + 500 x 1	-
	@ 4Ω + 2Ω	W x ch (3 ch)	-	-	200 x 2 + 550 x 1
	@ 4Ω	W x ch (2 ch)	-	500 x 2	-
Filters	Bypass		-	Yes	A&B: Yes
	Hi-Pass	Hz @ dB/Oct.	-	A: 50 ÷ 5k @ 12 B: 80 ÷ 3.3k @ 12	A: 40 ÷ 150 @ 12 B: 80 ÷ 3.3k @ 12
	Lo-Pass	Hz @ dB/Oct.	40 ÷ 150 @ 24	A: 50 ÷ 5k @ 12 B: 80 ÷ 3.3k @ 12	C: 40 ÷ 150 @ 24
	Band-Pass	Hz @ dB/Oct.	-	-	A: 40 ÷ 150 (Hi) @ 12 80 ÷ 3.3k (Lo) @ 12
Subsonic	Hi-Pass	Hz @ dB/Oct.	18 ÷ 40 @ 24	-	-
Sub Volume Remote Control Optional		(-50 ÷ 6) dB	Yes	-	Yes
Pre-Out	Bypass		Yes	Yes	-
Phase	Degree		0 ÷ 180	-	-
Distortion - THD	100 Hz @ 4Ω	%	0.08	0.08	0.08
S/N Ratio	Sensitivity @ 1 V RMS	dBA	103	100	A&B: 100 - C: 106
Damping factor	100 Hz @ 4Ω		100	50	A&B: 50 - C: 100
Size W x D x H		mm	171 x 344 x 46,70	171 x 284 x 46,70	171 x 344 x 46,70
		in.	6.7 x 13.5 x 1.8	6.7 x 11.2 x 1.8	6.7 x 13.5 x 1.8
	RMS Output Power	4Ω, ≤1% THD +N, 14.4 V	600 x 1	120 x 2	60 x 4 + 310 x 1
	S/N Ratio	Ref. 1 W Output	83.5	80	60 W: 80 - 310 W: 84

## ART

Automatic Remote Turn-On/Off function, automatically turns the amplifier on and off through the OEM head unit; it eliminates the need for a remote signal from the source when using the Speaker-In. This function can also be disabled.

## REFINED HEATSINK WITH HIGH CONVECTION CAPABILITY

The extruded aluminium heatsink provides high efficiency thermal performance, using the top side of the heatsink to effectively dissipate the heat generated by the electronic components. The internal temperature remains constant at all power levels.



## HCP ELECTRONICS

Special balanced input circuitry rejects electro-magnetic disturbances on the Pre-amplified or Speaker level inputs. Power supply stage features a multiple winding transformer and 105°C Low-ESR primary capacitors.

## COMPLETED FILTER SECTION

Large array of filters customized for each model, to achieve maximum versatility: Lo-Pass, Hi-Pass, Band-Pass, Full Range, Subsonic, Bass Boost, Phase and Mono. Filtered pre-amplified outputs along with multiple adjustments are featured on the HCP 1D, offering the user endless connection possibilities with any source.



# HERTZ COMPACT POWER

MINIMIZED SIZES HAVE BEEN ACHIEVED THANKS TO THE USE OF BOTH D AND AB CLASS CIRCUITS; HERTZ COMPACT POWER AMPLIFIERS ARE HIGHLY VERSATILE AND HAVE COMPARABLY HIGH POWER LEVELS; ALL AVAILABLE IN A LINE OF VERY COMPETITIVE MODELS.

## A GROUND-BREAKING COMBINATION OF COMPACT POWER AND HIGH VALUE



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# HCP

The Sound Experience



## HCP 1DK

D-CLASS MONO  
AMPLIFIER WITH  
CROSSOVER

**2480 W** MAX POWER



## HCP 1D

D-CLASS MONO  
AMPLIFIER

**1400 W** MAX POWER



## HCP 2X

STEREO AMPLIFIER  
WITH CROSSOVER

**800 W** MAX POWER






**HCP 2**  
STEREO  
AMPLIFIER



**400 W** MAX POWER

AMP specifications			HCP 1DK	HCP 1D	HCP 2X	HCP 2
Channel Mode			1	1	2 - 1	2 - 1
Output Power (RMS) @ 14.4 VDC	@ 4Ω	W x ch	740 x 1	380 x 1	120 x 2	65 x 2
	@ 2Ω	W x ch	1240 x 1	700 x 1	200 x 2	100 x 2
	@ 4Ω	W x ch (3 ch)	-	-	-	-
	@ 2Ω + 4Ω	W x ch (3 ch)	-	-	-	-
	@ 4Ω + 2Ω	W x ch (3 ch)	-	-	-	-
	@ 4Ω	W x ch (2 ch)	-	-	-	-
Filters	@ 4Ω	W x ch (mono)	-	-	400 x 1	200 x 1
	Bypass		Yes	Yes	Yes	Yes
	Hi-Pass	Hz @ dB/Oct.	-	-	50 ÷ 3,2k @ 12	80 @ 12
	Lo-Pass	Hz @ dB/Oct.	50 ÷ 250 @ 24	50 ÷ 250 @ 24	50 ÷ 3,2k @ 12	50 ÷ 500 @ 12
Subsonic	Band-Pass	Hz @ dB/Oct.	-	-	-	-
	Hi-Pass	Hz @ dB/Oct.	25 @ 24	25 @ 24	-	-
Boost	dB	gain @ 50 Hz	0 ÷ 6	0 ÷ 12	0/3/6	0 / 6 / 12
Sub Volume Remote Control		(-50 ÷ 6) dB	Yes	Yes	-	-
Phase	Degree		0 ÷ 180	0 ÷ 180	-	-
Pre-Out	Bypass		-	-	Yes	Yes
	Hi-Pass	Hz @ dB/Oct.	50 ÷ 250 @ 12	50 ÷ 250 @ 12	50 ÷ 3,2k @ 12	-
Distortion - THD	100 Hz @ 4Ω	%	0.25	0.2	0.03	0.01
S/N Ratio	Sensitivity @ 1 V RMS	dBA	100	100	105	103
Damping factor	100 Hz @ 4Ω		100	80	300	200
Size W x D x H		mm	315 x 190 x 50	215 x 190 x 50	315 x 190 x 50	215 x 190 x 50
		in.	12.40 x 7.48 x 1.97	8.46 x 7.48 x 1.97	12.40 x 7.48 x 1.97	8.46 x 7.48 x 1.97
	RMS Output Power	4Ω, ≤1% THD +N, 14.4 V	600 x 1	300 x 1	100 x 2	50 x 2
	S/N Ratio	Ref. 1 W Output	80	80	83	82



# HCP

The Sound Experience



**HCP 4D**  
D-CLASS  
FOUR CHANNEL  
AMPLIFIER

**1160 W** MAX POWER



**HCP 4**  
FOUR CHANNEL  
AMPLIFIER

**760 W** MAX POWER



**HRC**  
SUB VOLUME  
REMOTE CONTROL  
optional




**HCP 5D**  
D-CLASS  
FIVE CHANNEL  
AMPLIFIER



**1500 W** MAX POWER

### AMP specifications

			HCP 4D	HCP 4	HCP 5D
Channel Mode			4 - 3 - 2	4 - 3 - 2	5 - 3
Output Power (RMS) @ 14.4 VDC	@ 4Ω	W x ch	85 x 4	65 x 4	65 x 4 + 200 x 1
	@ 2Ω	W x ch	145 x 4	95 x 4	105 x 4 + 330 x 1
	@ 4Ω	W x ch (3 ch)	85 x 2 + 290 x 1	65 x 2 + 190 x 1	210 x 2 + 200 x 1
	@ 2Ω + 4Ω	W x ch (3 ch)	145 x 2 + 290 x 1	95 x 2 + 190 x 1	-
	@ 4Ω + 2Ω	W x ch (3 ch)	-	-	210 x 2 + 330 x 1
	@ 4Ω	W x ch (2 ch)	290 x 2	190 x 2	-
	@ 4Ω	W x ch (mono)	-	-	-
Filters	Bypass		Yes	Yes	Yes
	Hi-Pass	Hz @ dB/Oct.	A/B: 50 ÷ 3.2k @ 12	A/B: 80 @ 12	A: 50 ÷ 5k @ 12 B: 50 ÷ 500 @ 12
	Lo-Pass	Hz @ dB/Oct.	A/B: 50 ÷ 3.2k @ 12	A/B: 50 ÷ 500 @ 12	C: 50 ÷ 500 @ 24
	Band-Pass	Hz @ dB/Oct.	-	-	B: 50 ÷ 500 (Hi) @ 12 B: 50 ÷ 5k (Lo) @ 12
Subsonic	Hi-Pass	Hz @ dB/Oct.	-	-	25 @ 24
Boost	dB	gain @ 50 Hz	0 ÷ 12	0 / 6 / 12	0 ÷ 12
Sub Volume Remote Control Optional		(-50 ÷ 6) dB	-	-	Yes
Phase	Degree		-	-	-
Pre-Out	Bypass		Yes	Yes	Yes
	Hi-Pass	Hz @ dB/Oct.	-	-	-
Distortion - THD	100 Hz @ 4Ω	%	0.02	0.01	0.02
S/N Ratio	Sensitivity @ 1 V RMS	dBA	100	103	100
Damping factor	100 Hz @ 4Ω		200	120	A&B: 100 - C: 250
Size W x D x H		mm	215 x 190 x 50	315 x 190 x 50	345 x 190 x 50
		in.	8.46 x 7.48 x 1.97	12.40 x 7.48 x 1.97	13.58 x 7.48 x 1.97
	RMS Output Power	4Ω, ≤1% THD +N, 14.4 V	70 x 4	50 x 4	50 x 4 + 150 x 1
	S/N Ratio	Ref. 1 W Output	80	82	50 W: 83 - 150 W: 85

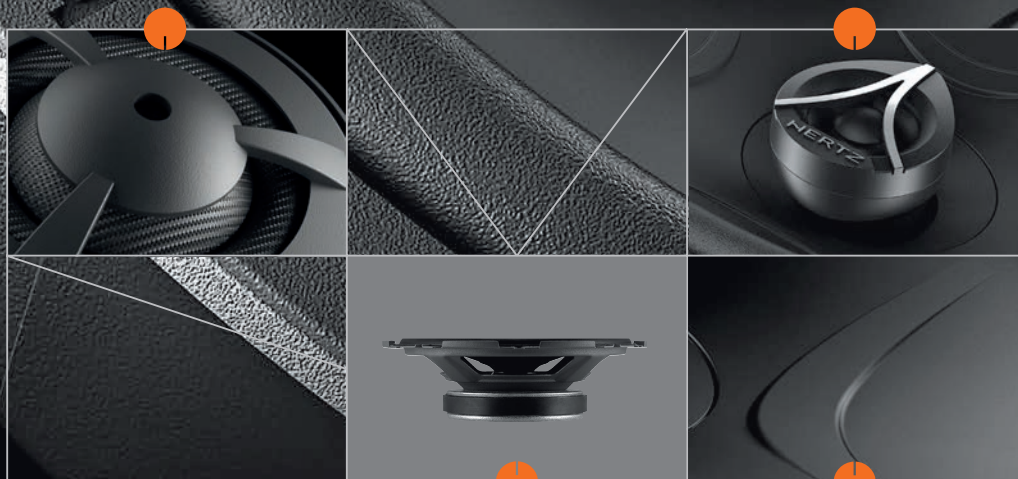


## TWEETER EVOLUTION

The ET 26.5 geometry features a wide roll external surround as well as an efficient, highly linear annular acoustic lens, actively adding to its emission capability, increasing the overall SPL and lowering the resonance frequency.

## ANGLED TWEETER WITH RHFC TECHNOLOGY

To increase sound linearity, the tweeter position is angled a further 10°; together with the RHFC (Rotary High Frequency Contour) technology, it provides the ability to control dispersion and obtain an ideal frequency response.



## ULTRA FLAT

Small size for no-limits installations. An accurate study of the components' profile led to more compact baskets and motor assemblies. EV F165.5 is a specific woofer which requires only 43 mm (1.7 in.) of depth to be installed!

## PERFECTLY SYMMETRICAL EXCURSION

Deep surface ribbings increasing rigidity; together with the proprietary V-cone®, they ensure perfectly symmetrical excursion of the membrane, for a solid, clean sound.



The logo for Energy 5, featuring the word "energy" in a stylized, lowercase font with a horizontal line underneath, followed by the number "5".

energy 5

The background of the advertisement features a large, close-up image of a Hertz Energy 5 speaker on the left, showing its black frame and the "HERTZ" brand name. To the right, a smaller image shows a complete Hertz Energy 5 speaker assembly, including a circular woofer with a black cone and a smaller tweeter with a mesh grille. The entire scene is set against a dark background with a large orange geometric shape in the upper left corner.

# EFFICIENT, VERSATILE, INSTALLATION-FRIENDLY

ENERGY.5 LOUDSPEAKERS ASSURE RELIABILITY AND EFFICIENCY, WHICH MARKED THE SUCCESS OF THIS LINE SINCE ITS FIRST RELEASE. EACH ENERGY.5 COMPONENT HAS BEEN DEVELOPED WITH THE PURPOSE OF INCREASING HIGH-PERFORMANCE AND OPTIMIZING THE OVERALL SIZE; THE RESULT IS A THRILLING LINE THAT REPRESENTS THE IDEAL SOLUTION TO UPGRADE OEM SYSTEMS.



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### ET 26.5

TWEETER  
150 W



Mounting Accessories provided with  
ESK 130.5, ESK 165.5, ESK 165L.5,  
ESK F165.5, ESK 163L.5, ET 26.5

### EMV 100.5

MIDWOOFER  
120 W



### EV 130.5

WOOFER  
150 W



### EV 165.5

WOOFER  
210 W



### EV 165L.5

WOOFER  
210 W



### EV F165.5

WOOFER  
180 W



COMP specifications	Size mm (in.)	Power Handling W		Imp. $\Omega$	Freq. Resp. Hz	Sensitivity dB/SPL	Magnet	Cone
		Peak	Cont. prog.					
ET 26.5	26 (1)	150 (Hi-Pass filtered @ 3.5 kHz - 12 dB/Oct.)	-	4	2k ÷ 23k	92	Neodymium	Tetolon fiber
EMV 100.5	100 (4)	120	40	4	80 ÷ 7,5k	91	High density flux ferrite	Water repellent pressed paper
EV 130.5	130 (5)	150	50	4	70 ÷ 6k	93		Water repellent non-pressed paper
EV 165.5	165 (6.5)	210	70	4	60 ÷ 5k	93,5		Water repellent non-pressed paper
EV 165L.5	165 (6.5)	210	70	4	50 ÷ 4k	92		Water repellent pressed paper
EV F165.5	165 (6.5)	180	60	4	65 ÷ 4k	93,5		

## ECX 100.5

2 WAY COAXIAL  
100 W



## ECX 130.5

2 WAY COAXIAL  
150 W



## ECX 165.5

2 WAY COAXIAL  
210 W



ECX 100.5  
ECX 130.5  
ECX 165.5  
ECX 570.5

## ECX 570.5

2 WAY COAXIAL

210 W



## ECX 690.5

3 WAY COAXIAL

300 W



included

COAX specifications	Size mm (in.)			Power Handling W		Imp. $\Omega$	Freq. Resp. Hz	Sensitivity dB/SPL	Magnet WF/TW	Woofer/ Cone	Tweeter/ Dome
	Woofer	Tweeter	SuperTweeter	Peak	Cont. prog.						
ECX 100.5	100 (4.0)	24 (0.9)	-	120	40	4	80 ÷ 23k	92	High density flux ferrite / Neodymium	Water repellent pressed paper	PEI
ECX 130.5	130 (5.0)	24 (0.9)	-	150	50	4	70 ÷ 23k	93			
ECX 165.5	165 (6.5)	24 (0.9)	-	210	70	4	60 ÷ 23k	94			
ECX 570.5	(5 x 7)	24 (0.9)	-	210	70	4	60 ÷ 23k	94			
ECX 690.5	(6 x 9)	40 (1.58)	15 (0.6)	300	100	4	40 ÷ 23k	95			





**ESK 130.5**  
2 WAY SYSTEM  
225 W



included



**ESK 165.5**  
2 WAY SYSTEM  
305 W



included





**ESK 165L.5**  
2 WAY SYSTEM  
300 W



included



**ESK F165.5**  
2 WAY SYSTEM  
270 W



included



EMV 100.5  
EV 130.5  
EV 165.5  
EV 165L.5



EV F165.5



ET 26.5



**ESK 163L.5**  
3 WAY SYSTEM  
375 W



included

SYSTEM specifications	Size mm (in.)			Power Handling W		Imp. $\Omega$	Freq. Resp. Hz	Sens. dB/SPL	Crossover included
	Woofer	Midrange	Tweeter	Peak	Continuous				
<b>ESK 130.5</b>	EV 130.5 130 (5)	-	ET 26.5 26 (1)	225	75	4	70 ÷ 23k	93	LP/HP @ 3kHz - 6/12 dB Oct.
<b>ESK 165.5</b>	EV 165.5 165 (6.5)	-	ET 26.5 26 (1)	300	100	4	60 ÷ 23k	93,5	LP/HP @ 3kHz - 6/12 dB Oct.
<b>ESK 165L.5</b>	EV 165L.5 165 (6.5)	-	ET 26.5 26 (1)	300	100	4	50 ÷ 23k	92	LP/HP @ 3kHz - 6/12 dB Oct.
<b>ESK F165.5</b>	EV F165.5 165 (6.5)	-	ET 26.5 26 (1)	270	90	4	65 ÷ 23k	93,5	LP/HP @ 3kHz - 6/12 dB Oct.
<b>ESK 163L.5</b>	EV 165L.5 165 (6.5)	EMV 100.5 100 (4)	ET 26.5 26 (1)	375	125	4	50 ÷ 23k	92	LP/BP/HP @ 600 Hz - 12/6 dB Oct. 6kHz - 6/12 dB Oct.



**ES 200.5**  
SUBWOOFER  
**1000 W**

**ES 250.5**  
**ES 250D.5**  
SUBWOOFER  
**750 W**



**ES 300.5**  
**ES 300D.5**  
SUBWOOFER  
**1050 W**



**ES F20.5**  
SUBWOOFER  
**600 W**  
**ES F25.5**  
SUBWOOFER  
**900 W**



**ESG 200 GR**  
**ESG 250 GR**  
**ESG 300 GR**  
optional grille

SUB COMP specifications	Size mm (in.)	Power Handling W		Imp. Ω	Freq. Resp. Hz	Sensitivity dB/SPL	Ø Voice Coil mm (in.)	Magnet	Cone	X-mech mm (in.)
		Peak	Cont. prog.							
ES 200.5	200 (8)	600	200	4	30 ÷ 400	88,5	50 (2)	Double magnet, high density flux ferrite	Water repellent pressed paper	13,5 (0.53)
ES 250.5	250 (10)	750	250	4	28 ÷ 300	89,5	50 (2)			16 (0.63)
ES 300.5	300 (12)	1050	350	4	25 ÷ 250	92	60 (2.36)			16 (0.63)
ES 250D.5	250 (10)	750	250	4 + 4	28 ÷ 300	92	50 (2)	Dual voice coil, double magnet, high density flux ferrite		16 (0.63)
ES 300D.5	300 (12)	1050	350	4 + 4	25 ÷ 250	94,5	60 (2.36)			16 (0.63)
ES F20.5	200 (8)	600	200	4	32 ÷ 400	93	38 (1.5)	High density flux ferrite		12 (0.47)
ES F25.5	250 (10)	900	300	4	30 ÷ 300	92	60 (2.36)			13 (0.51)



600 W

**EBX F20.5**  
REFLEX SUB BOX



900 W

**EBX F25.5**  
REFLEX SUB BOX



ES 200.5  
ES 250.5  
ES 250D.5  
ES 300.5  
ES 350.5  
ES 380.5

**ULTRA flat**

ES F20.5  
ES F25.5  
ES F30.5  
EBX F20.5  
EBX F25.5

**EBX 200.5**  
REFLEX SUB BOX  
**500 W**

**EBX 250.5**  
REFLEX SUB BOX  
**700 W**

**EBX 300.5**  
REFLEX SUB BOX  
**1000 W**

Exponential-Flanged-Duct®



SUB BOX specifications	Speaker Size mm (in.)	Passive Radiator Size mm (in.)	Power Handling W		Imp. Ω	Freq. Resp. Hz	Sensitivity dB/SPL	Box Size mm (in.)	Magnet	Cone
			Peak	Cont. prog.						
<b>EBX F20.5</b>	200 (8)	250 (10)	600	200	4	40 ÷ 400	93	520 x 108 x 320 (20.5 x 4.3 x 12.6)	High density flux ferrite	Water repellent pressed paper
<b>EBX F25.5</b>	250 (10)	300 (12)	900	300	4	38 ÷ 350	92	670 x 119 x 403 (26.4 x 4.7 x 15.9)		
<b>EBX 200.5</b>	200 (8)	-	500	250	4	30 ÷ 400	91	390 x 297 x 288 (15.4 x 11.7 x 11.3)		
<b>EBX 250.5</b>	250 (10)	-	700	350	4	28 ÷ 300	93	465 x 365 x 338 (18.3 x 13.4 x 13.3)		
<b>EBX 300.5</b>	320 (12)	-	1000	500	4	25 ÷ 250	94	545 x 387 x 400 (21.5 x 13.0 x 15.7)		





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## SATISFYING EVERY NEED, IN EVERY CAR

A NEW LANDMARK IN ITS CATEGORY FOR  
COMPLETENESS OF PRODUCT RANGE  
AND ACCURATE DESIGN. EXTENDED  
FREQUENCY RESPONSE, WIDE OFF-AXIS  
DISPERSION, EVEN HIGHER EFFICIENCY  
AND UNDISTORTED, POWERFUL SOUND  
WITH ANY SOURCES, IN ANY CAR.







**DCX 87.3**  
2 WAY COAXIAL  
60 W



**DCX 100.3**  
2 WAY COAXIAL  
60 W



**DCX 130.3**  
2 WAY COAXIAL  
80 W



**DCX 165.3**  
2 WAY COAXIAL  
120 W



**DCX 170.3**  
2 WAY COAXIAL  
100 W

Compact **SIZE**

COAX specifications	Size mm (in.)			Power Handling W		Imp. $\Omega$	Freq. Resp. Hz	Sensitivity dB/SPL	Magnet	Cone/Dome WF/TW
	Woofers	Tweeter	SuperTweeter	Peak	Continuous					
<b>DCX 87.3</b>	87 (3.4)	15 (0.6)	-	60	30	4	130 ÷ 21k	92	High density flux ferrite / Neodymium	Water repellent pressed paper/ PEI
<b>DCX 100.3</b>	100 (4)	15 (0.6)	-	60	30	4	70 ÷ 21k	92		
<b>DCX 130.3</b>	130 (5)	15 (0.6)	-	80	40	4	65 ÷ 21k	93		
<b>DCX 165.3</b>	165 (6.5)	15 (0.6)	-	120	60	4	60 ÷ 21k	93		
<b>DCX 170.3</b>	170 (6.7)	15 (0.6)	-	100	50	4	60 ÷ 21k	93		



**DCX 460.3**  
2 WAY COAXIAL  
80 W



**DCX 570.3**  
2 WAY COAXIAL  
120 W



**DCX 690.3**  
2 WAY COAXIAL  
180 W



**DCX 710.3**  
3 WAY COAXIAL  
300 W



included  
DCX 690.3  
DCX 710.3

COAX specifications	Size mm (in.)			Power Handling W		Imp. $\Omega$	Freq. Resp. Hz	Sensitivity dB/SPL	Magnet WF/TW	Cone/Dome WF/TW
	Woofer	Tweeter	SuperTweeter	Peak	Continuous					
<b>DCX 460.3</b>	(4 x 6)	15 (0.6)	-	80	40	4	65 ÷ 21k	93	High density flux ferrite / Neodymium	Water repellent pressed paper / Water repellent pressed paper/PEI
<b>DCX 570.3</b>	(5 x 7)	15 (0.6)	-	120	60	4	60 ÷ 21k	93		
<b>DCX 690.3</b>	(6 x 9)	60 (2.5)	15 (0.6)	180	90	4	45 ÷ 21k	93		
<b>DCX 710.3</b>	(7 x 10)	60 (2.5)	15 (0.6)	300	150	4	40 ÷ 21k	93		



### Compact SIZE

DT 24.3  
DV 170.3



COMP specifications	Size mm (in.)	Power Handling W	Imp. $\Omega$	Freq. Resp. Hz	Sens. dB/SPL	Magnet	Cone/Dome WF/TW	Crossover included
	Tweeter	Peak						
DT 24.3	24 (0.9)	80 (Hi-pass filt. @ 3,5 kHz - 6 dB/Oct.)	4	3k ÷ 23k	94	Neodymium	PEI	3,5kHz - 6 dB Oct.

SYSTEM specifications	Size mm (in.)		Power Handling W		Imp. $\Omega$	Freq. Resp. Hz	Sensitivity dB/SPL	Magnet	Cone/Dome WF/TW	Crossover included
	Woofers	Tweeter	Peak	Continuous						
DSK 130.3	DV 130.3 130 (5)	DT 24.3 24 (0.9)	120	60	4	60 ÷ 23k	93	High density flux ferrite / Neodymium	Water repellent pressed paper/PEI	3,5kHz - 12 dB Oct.
DSK 165.3	DV 165.3 165 (6.5)	DT 24.3 24 (0.9)	160	80	4	50 ÷ 23k	93			3,5kHz - 12 dB Oct.
DSK 170.3	DV 170.3 170 (6.7)	DT 24.3 24 (0.9)	160	80	4	50 ÷ 23k	93			3,5kHz - 12 dB Oct.

600 W

**DS 25.3**  
SUBWOOFER



1000 W

**DS 30.3**  
SUBWOOFER



**DSG 250.3**  
**DSG 300.3**

optional grille

SUB specifications	Size mm (in.)	Power Handling W		Imp. Ω	Freq. Resp. Hz	Sensitivity dB/SPL	Ø Voice Coil mm (in.)	Magnet	Cone	X-mech mm (in.)
		Peak	Cont. prog.							
<b>DS 25.3</b>	250 (10)	600	150	4	32 ÷ 400	89	38 (1.5)	High density flux ferrite	Polypropylene with Mica injection	16 (0.63)
<b>DS 30.3</b>	300 (12)	1000	250	4	28 ÷ 300	91	38 (1.5)			16 (0.63)





**DBA 200.3**  
ACTIVE SUB BOX

140 W



600 W

**DBX 25.3**  
SEALED SUB BOX

**DBX 30.3**  
SEALED SUB BOX

1000 W



**DST 30.3B**  
REFLEX SUB BOX

1000 W



**DBX 252.3**  
SEALED SUB BOX

1200 W

SUB BOX specifications	Speaker Size mm (in.)	Passive Radiator Size mm (in.)	Power Handling W		Imp. $\Omega$	Freq. Resp. Hz	Sensitivity dB/SPL	Box Size mm (in.)	Magnet	Cone
			Peak	Cont. prog.						
<b>DBA 200.3</b>	200 (8)	200 (8) x 2	140	-	4	32 ÷ 400	92	330 x 293 x 263 (13 x 11.6 x 10.4)	High density flux ferrite	Water repellent pressed paper
<b>DBX 25.3</b>	250 (10)	-	600	150	4	32 ÷ 400	89	443 x 227 x 298 (17.4 x 8.9 x 11.7)		
<b>DBX 30.3</b>	300 (12)	-	1000	250	4	28 ÷ 300	91	484 x 227 x 343 (19 x 8.9 x 13.5)		
<b>DBX 252.3</b>	2 x 250 (2 x 10)	-	1200	300	2	-	92	650 x 295 x 300 (25.6 x 11.6 x 11.8)		

TUBE SUB BOX specifications	Size mm (in.)	Power Handling W		Imp. $\Omega$	Freq. Resp. Hz	Sensitivity dB/SPL	Box Size mm (in.)	Ø Voice Coil mm (in.)
	Speaker	Peak	Continuous					
<b>DST 30.3B</b>	300 (12)	1000	250	4	30 ÷ 250	91	660 x 338 (26 x 13.3)	50 (2.0)

**SPL Show**  
**SPL Monster**

# IMPRESSIVE SOUND PRESSURE AND POWER

A UNIQUE SPL PROJECT  
FOR THE BEST  
PERFORMANCE  
IN ANY APPLICATION.

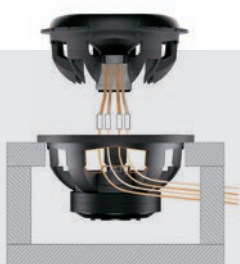
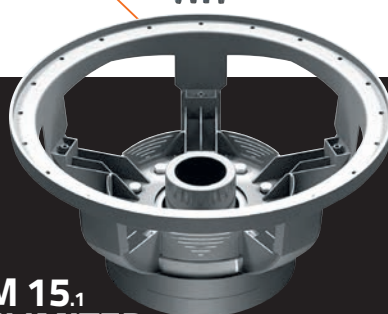


DESIGNED FOR  
SPL **TEAMS**

**8000 W**

**MG 15  
BASS**

SUBWOOFER  
MOBILE GROUP



RMA - Removable Moving Assembly

**MM 15.1  
UNLIMITED**

SUBWOOFER  
MOTOR GROUP

MOBILE GROUP specifications	Size mm (in.)	Power Handling W		Imp. Ω	Sensitivity dB/SPL	Ø Voice Coil mm (in.)	Cone	X-mech mm (in.)
		Peak	Cont. prog.					
<b>MG 15 BASS</b> 2 x 1.0	380 (15)	8000	2000	1,0 + 1,0	94	75 (3)	Water repellent pressed paper	35 (1.4)

MOTOR GROUP specifications	Size mm (in.)	Outer Ø mm (in.)	Mounting Ø mm (in.)	Total depth* mm (in.)	Mount. depth mm (in.)	Magnet
<b>MM 15.1 UNLIMITED</b>	380 (15)	399 (15.7)	350 (13.8)	256 (10)	209 (8.3)	High density flux ferrite, double magnet

\* Including Mobile Group



# DESIGNED FOR SPL ENTHUSIASTS

**6000 W** MAX POWER

## HP 6001

D-CLASS MONO AMPLIFIER



**3600 W** MAX POWER

## HP 3001

D-CLASS MONO AMPLIFIER



**1800 W** MAX POWER

## HP 802

STEREO POWER AMPLIFIER



## HRC

SUB VOLUME REMOTE CONTROL included

### AMP specifications

			HP 802	HP 3001	HP 6001
Channel Mode			2 - 1	1	1
Output Power	@ 4Ω	W x ch	380 x 2	1440 x 1	2150 x 1
	@ 2Ω	W x ch	630 x 2	2400 x 1	3760 x 1
	@ 1Ω	W x ch	900 x 2	3600 x 1	6000 x 1
	@ 4Ω	W x ch (mono)	1260 x 1	-	-
	@ 2Ω	W x ch (mono)	1800 x 1	-	-
	@ 2Ω	W x ch (chain)	-	7200 x 1	12000 x 1
Filters	Bypass		Yes	Yes	Yes
	Hi-Pass	Hz @ dB/Oct.	50 ÷ 10k @ 12	-	-
	Lo-Pass	Hz @ dB/Oct.	50 ÷ 10k @ 12	50 ÷ 400 @ 24	50 ÷ 400 @ 24
	Band-Pass	Hz @ dB/Oct.	50 ÷ 10k (Hi) @ 12 50 ÷ 10k (Lo) @ 12	-	-
Subsonic	Hi-pass	Hz @ dB/Oct.	-	25 @ 24	25 @ 24
Equalizer	Gain	dB	-12 ÷ 12	-	-
	Freq.	Hz	50 ÷ 1k	-	-
	Bandwidth	Q	0.5 ÷ 2	-	-
Sub Volume Remote Control		(-50 ÷ 6) dB	-	Yes	Yes
Phase	Degree		-	0 ÷ 180	0 ÷ 180
Pre-Out	Bypass		Yes	-	-
Chain mode	Master/Slave		--	Yes	Yes
Distortion - THD	100 Hz @ 4Ω	%	0.05	0.1	0.1
S/N Ratio	Sensitivity @ 1 V RMS	dBA	103	96	86
Damping factor	100 Hz @ 4Ω		500	150	500
Size W x D x H		mm	544 x 240 x 65,5	544 x 240 x 65,5	644 x 280 x 65,5
		in.	21.41 x 9.45 x 2.55	21.41 x 9.45 x 2.55	25.35 x 11.02 x 2.55

### ST 25

SPL TWEETER  
100 W



AFR 25 (optional)

### ST 35

SPL TWEETER  
100 W



AFR 35 (optional)

### ST 44

SPL TWEETER  
100 W



**SV 165.1**  
SPL MIDRANGE  
400 W



**SV 200.1**  
SPL MIDRANGE  
500 W



**SV 250.1**  
SPL MIDRANGE  
500 W

COMP specifications	Size mm (in.)	Power Handling W		Imp. $\Omega$	Freq. Resp. Hz	Sensitivity dB/SPL	$\varnothing$ Voice Coil mm (in.)	Magnet	Cone
		Peak	Cont. prog.						
ST 25	25 (1)	100 (Hi-Pass filtered @ 5 kHz - 12 dB/Oct.)	-	4	3k ÷ 20k	107	25 (1)	Neodymium	Aluminium
ST 35	35 (1.4)	100 (Hi-Pass filtered @ 4.5 kHz - 12 dB/Oct.)	-	4	2,5k ÷ 20k	109	35 (1.4)		
ST 44	44 (1.7)	100 (Hi-Pass filtered @ 4.5 kHz - 12 dB/Oct.)	-	4	2,5k ÷ 20k	109	44 (1.7)		
SV 165.1	165 (6.5)	400 (Hi-Pass filtered @ 200 Hz - 12 dB/Oct.)	-	4	100 ÷ 10k	97	38 (1.5)	High density flux ferrite	Ultra Light pressed paper
SV 200.1	200 (8)	500 (Hi-Pass filtered @ 150 Hz - 12 dB/Oct.)	-	4	100 ÷ 9k	100	38 (1.5)		Ultra Light non-pressed paper
SV 200L	200 (8)	500	250	4	45 ÷ 4,5k	94,5	50 (2)		Ultra Light pressed paper
SV 250.1	250 (10)	500 (Hi-Pass filtered @ 150 Hz - 12 dB/Oct.)	-	4	90 ÷ 7k	101	50 (2)		

**SPL Show**

DESIGNED FOR SPL  
ENTHUSIASTS

The Sound Experience

## SV 200L

SPL WOOFER  
500 W



**HGR 250**  
**HGR 300**  
optional grille



DOUBLE  
VOICE COIL



## SX 250D

SUBWOOFER

**2400 W**



## SX 300D

SUBWOOFER

**3200 W**



## SX 380D

SUBWOOFER

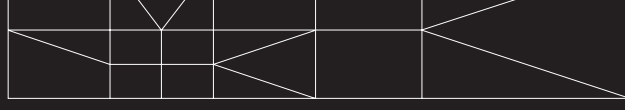
**4000 W**

SUB specifications	Size mm (in.)	Power Handling W		Imp. $\Omega$	Freq. Resp. Hz	Sensitivity dB/SPL	$\varnothing$ Voice Coil mm (in.)	Magnet	Cone	X-mech mm (in.)
		Peak	Cont. prog.							
<b>SX 250D</b>	250 (10)	2400	600	2,0 + 2,0	34 ÷ 800	90,5	65 (2.6)	Double magnet, high density flux ferrite	Pressed paper	23 (0.9)
<b>SX 300D</b>	300 (12)	3200	800	2,0 + 2,0	28 ÷ 700	91	65 (2.6)			23 (0.9)
<b>SX 380D</b>	380 (15)	4000	1000	2,0 + 2,0	25 ÷ 600	92	65 (2.6)			23 (0.9)



# The Sound Experience

 HERTZ





All Specifications Subject to Change Without Notice

2017

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