

POW 80: New mid-range speaker from Eton

Three-way big-hitter



► With the POW 80 Eton finally presents a mid-range speaker to complement its POW series speakers. Here we take a look at it.

Eton has a heart for fans of 3-way systems, there now being no less than six different mid-range speaker products on offer. From high-end (Core, Onyx) through premium (RSE, PRO) to the budget price segment (POW, PRW) there is something to suit every pocket. Elsewhere there is not a lot on offer that is affordable, so we ought to be particularly grateful just now to Eton for the new POW 80. It comes with a metal basket, complete with a matching mounting ring and grill. The cone is naturally typical for POW, meaning we have a paper cone that is coated with woven fiber glass at the front. The

POW 80 is also made in Germany, even parts such as the cone and surround coming from local production – amazing in this price category! The ventilation features rear vent openings in the basket as well as a large pole-piece hole formed to promote good air flow. Generally the driver has also been internally flow optimized. Expensive neodymium is out of reach in this price category, so the POW 80 was given a ferrite drive. It operates with a 25-mm voice coil, impressive for the cone size, wound on a hole-punched aluminum former. As for the larger POW chassis, the cone is sealed by a

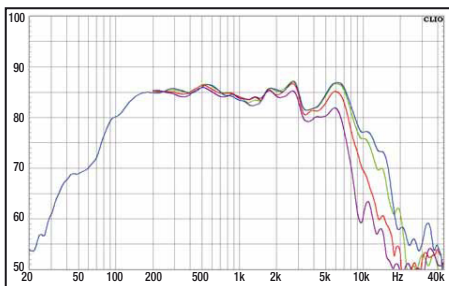


Mounting ring and grill are shipped with the kit

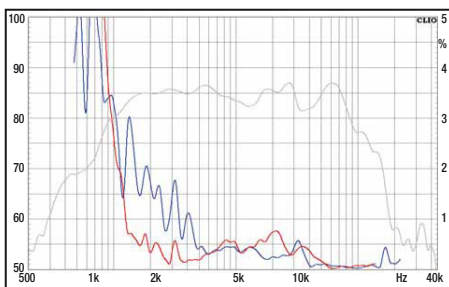


The POW 80 operates with a rather impressive driver having a 25-mm voice coil and a correspondingly large ferrite magnet

soft dust cap of rubber-like plastic. The centering spider is designed as a pot spider so that it works a few millimeters above the bonding surface. This gives the moving assembly an impressive freedom of movement of approximately 8 mm, which the mid-range speaker will never reach during operation.



The POW already delivers sound pressure above 160 Hz, usable from 200 Hz. At the upper end of the frequency response a dip finds its way into the frequency response, although this does not present a problem sonically



Even at a robust 87 dB/1 m the POW 80 shows little distortion. There is some harmless K2 (here without crossover), and the more serious K3 (red) remains very low even at low frequencies

Measurements

With a quality factor (Q) of 0.69, a resonant frequency of 127 Hz and equivalent volume of 0.7 liters the POW is perfectly tuned to play without an enclosure in the dashboard and in a door, or to work in an enclosure of more than 0.5 liters. A moving mass of only 3.9 grams should allow it to play with a lively response. The amplitude frequency response is well-behaved up to 8 kHz with a dip around 4 kHz. However, this does no harm sonically, as proved by the distortion figures and also the correct decay. At the low end the POW 80 already achieves full sound pressure from 160 Hz on up, although it should not be cut off below 200 Hz. As always a higher cut-off frequency aids power handling ability and hence the level. The distortion is perfectly well behaved with the level of distortion remaining very low right up to high volumes. As the volume gets louder our measurements show distortion rising below 500 Hz, albeit only the „K2“ and even this is reduced in practice by a high pass filter. The „bad“ K3 remains extremely low under all operating conditions. Altogether we are more than satisfied with the POW 80, which has been faultlessly designed and built, and therefore to be highly recommended.

Summary

With the POW 80 Eton has brought out a mid-range speaker to complement the popular POW component speakers. The POW 80 scores with a very good price/performance ratio to earn a big recommendation.

HIGHLIGHT
Mid-Speaker
CAR&HiFi 4/2023

Eton POW 80

Price	about 150 Euro
Distributor	ACR, CH-5330 Zurzach
Hotline	info@eton-caraudio.com
Internet	www.eton-audio.com

Technical Data

Outer diameter	96 mm
Mounting diameter	75 mm
Mounting depth	39 mm
Magnet diameter	65 mm
Cone	paper/woven fiber glass
Voice-coil	copper
Voice-coil former	aluminum
Magnet	ferrite
Max. cut off frequency	7 kHz
Min. cut off frequency	200 Hz
Weight	421 g
Other	grills

Nominal impedance	4 ohms
DC resistance Rdc	3,14 ohms
Coil inductivity Le	0,23 mH
Coil diameter	25 mm
Cone surface Sd	35 cm ²
Resonance frequency Fs	127,0 Hz
Mechanical quality Qms	3,82
Electrical quality Qes	0,84
Total quality Qts	0,69
Equivalent volume Vas	0,7 l
Moving mass Mms	3,9 g
Rms	0,82 kg/s
Cms	0,40 mm/N
B*I	3,43 Tm
Sensitivity 2 V, 1 m	85dB

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Eton POW 80

“Faultlessly made and good value.”