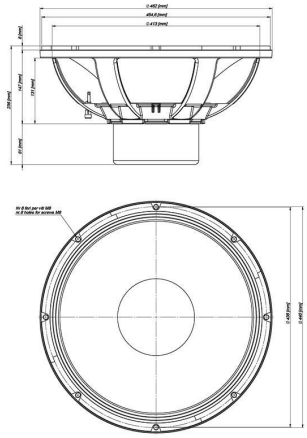
18iD 2Ω

LF drivers - 18.0 Inches



- Class D amplifier optimized for maximum power transfer
- Conforms to Powersoft™ iPal® standards
- 95 dB SPL 1W / 1m average sensitivity
- 135mm (5.3") split winding, four layer ISV copper voice coil
- 3600 W program power handling
- Triple Silicon Spider (TSS) for improved excursion control
- Aluminum demodulating ring (SDR) for lower distortion

The 18iD is an 18 inch neodymium ultra high performance subwoofer. The transducer has been optimized for vented and bandpass subwoofer cabinet designs and is recommended for being driven by a Class D or iPal (tm*) amplifier able to deliver 3600 Watt program power without clipping. 18 Sound engineers have obtained the best possible results with today's available materials in terms of clean and undistorted LF reproduction at a ultra high SPL, with the lowest possible power compression figure. The 18iD design features include a large displacement suspension system specifically designed for matching the composite fiber reinforced, straight ribbed cone. Thanks to the Triple Silicon Spider (TSS) technology, the 18iD is able to control the moving mass with high linearity, showing an exceptional stability of mechanical parameter values in the long term. Bl force factor, as well as all other electro-dynamic parameters, are linear within the working range. This, together with the exceptional high excursion behavior - 70mm before damage, ±14mm linear Xmax - makes the 18iD an extremely low distortion, highly dynamic transducer. The 18iD features a state-of-the-art 5,3" inside outside ISV copper voice coil enabling the 18iD to deliver extraordinary transient results. The 18iD has been developed after intense FEA and fluidodynamics simulation and testing,focusing on dissipating the heat generated by the powerful voice coil. Special attention was given to the optimization of air flow into the gap without introducing audible noise. A low density material air diffractor placed into the heatsink acts as a cooling system, increasing the power handling capability and lowering the power compression figure.

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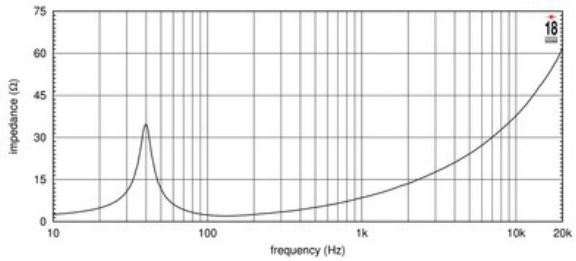

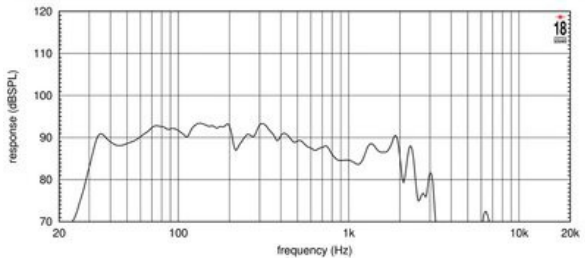

SPECIFICATIONS

Nominal Diameter	460 mm (in)
Nominal Impedance	2 Ω
Minimum Impedance	2.0 Ω
Nominal Power Handling[1]	1800 W
Continuous Power Handling[2]	3600 W
Sensitivity[3]	95.0 dB
Frequency Range	30 - 2500 Hz
Voice Coil Diameter	135 mm (5.3 in)
Winding Material	copper

DESIGN

Surround Shape	Triple roll
Cone Shape	Straight
Magnet Material	Neo
Woofer Cone Treatment	Water,UV repellent
Recommended Enclosure	200.0 dm^3 (7.06 ft^3)
Recommended Tuning	40 Hz

PARAMETERS[4]

Resonance Frequency	40 Hz
Re	1.5 Ω
Qes	0.27
Qms	5.5
Qts	0.26
Vas	67.0 dm^3 (2.37 ft^3)
Sd	1225.0 cm^2 (189.88 in^2)
Xmax	15.5 mm
Mms	420.0 g
Bl	24.0 Txm
Le	1.22 mH
EBP	148 Hz

MOUNTING AND SHIPPING INFO

Overall Diameter	462 mm (18.19 in)
Bolt Circle Diameter	440 mm (17.32 in)
Baffle Cutout Diameter	416.0 mm (16.38 in)
Depth	236 mm (9.29 in)
Flange and Gasket Thickness	26 mm (1.02 in)
Net Weight	12.5 kg (27.56 lb)
Shipping Weight	14.0 kg (30.86 lb)
Shipping Box	482 x 482 x 257 mm (18.98x18.98x10.12 in)

1. 2 hours test made with continuous pink noise signal within the range Fs-10Fs. Power calculated on rated minimum impedance. Loudspeaker in free air.
2. Power on Continuous Program is defined as 3 dB greater than the Nominal rating.
3. Applied RMS Voltage is set to 2.83 V for 8 ohms Nominal Impedance.
4. Thiele-Small parameters are measured after a high level 20 Hz sine wave preconditioning test.

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