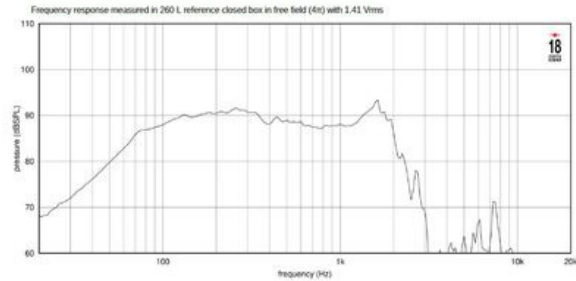
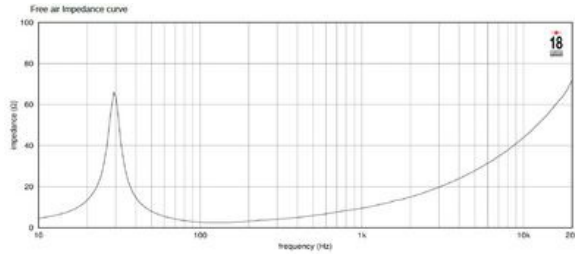


- Class D amplifier optimized for maximum power transfer
- Conforms to Powersoft™ iPal® standards
- 95 dB SPL 1W/ 1m average sensitivity
- 135mm (5.3") split winding, four layer ISV copper voice coil
- 3600 W program power handling
- Double Silicon Spider (DSS) for improved excursion control

**Limited distribution - US only**

**Contact [Thunderball Marketing](#) for info**

The 18iDSDS is an 18 inch neodymium ultra high performance subwoofer. The transducer has been optimized for any subwoofer cabinet designs (even the most compact) and is recommended for being driven by a Class D or iPal (tm\*) amplifier able to deliver 3600 Watt program power without clipping on 2ohms loads. 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 18iDSDS design features include a large displacement suspension system specifically designed for matching the composite fiber reinforced, straight ribbed cone. Thanks to the Double Silicon Spider (DSS) technology, the 18iDSDS200 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,  $\pm 18\text{mm}$  linear  $X_{\text{max}}$  - makes the 18iDSDS200 an extremely low distortion, highly dynamic transducer. The 18iDSDS features a state-of-the-art 5,3" inside outside ISV copper voice coil enabling the 18iD to deliver extraordinary transient results. The 18iDSDS 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.



### SPECIFICATIONS

Nominal Impedance	2 Ω
Minimum Impedance	1.9 Ω
Nominal Power Handling <sup>1</sup>	1800 W
Continuous Power Handling <sup>2</sup>	3600 W
Sensitivity <sup>3</sup>	95.0 dB
Frequency Range	29 - 1000 Hz
Voice Coil Diameter	135 mm (5.3 in)
Winding Material	aluminum
Winding Depth	45.0 mm (1.77 in)
Magnetic Gap Depth	18.0 mm (0.71 in)

### PARAMETERS<sup>4</sup>

Resonance Frequency	29 Hz
Re	1.3 Ω
Qes	0.18
Qms	7.0
Qts	0.17
Vas	136.0 dm <sup>3</sup> (4.8 ft <sup>3</sup> )
Sd	1225.0 cm <sup>2</sup> (189.88 in <sup>2</sup> )
η <sub>o</sub>	2.0 %
X <sub>max</sub>	18.0 mm
X <sub>var</sub>	15.0 mm
M <sub>ms</sub>	444.0 g
Bl	24.4 Txm
Le	0.93 mH
EBP	161 Hz

### DESIGN

Surround Shape	Triple roll
Magnet Material	Neo
Spider	Double Silicon Spider
Woofers Cone Treatment	Reinforced, water repellent, treated paper
Recommended Enclosure	120.0 dm <sup>3</sup> (4.24 ft <sup>3</sup> )
Recommended Tuning	33 Hz

### MOUNTING AND SHIPPING INFO

Overall Diameter	462 mm (18.19 in)
Bolt Circle Diameter	440 mm (17.32 in)
Baffle Cutout Diameter	417.0 mm (16.42 in)
Depth	238 mm (9.37 in)
Flange and Gasket Thickness	24 mm (0.94 in)
Net Weight	16.0 kg (35.27 lb)
Shipping Weight	16.6 kg (36.6 lb)

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.