MIDWOOFER 18W/8545-00

The Symmetric Drive (SD-1) concept with copper in the magnet system was invented by Scan-Speak. High-quality magnet system design has thus been a key feature of Scan-Speak design since the company's inception. The Classic woofers are highly praised, and are used in some of the worlds most exceptional high-end Loudspeakers. Some feature Kevlar cones, others have the innovative Carbon fibre paper cones.

KEY FEATURES:

- Patented Symmetrical Drive Motor Design
- Air Dried Paper/Carbon Fibre Cone
- 42mm Voice Coil w. Alu foil
- Low-Loss linear suspension
- Low Damping SBR Rubber Surround

T-S Parameters

- Resonance frequency [fs] 28 Hz
- Mechanical Q factor [Qms] 2.30
- Electrical Q factor [Qes] 0.30
- Total Q factor [Qts] 0.27
- Force factor [Bl] 8 Tm
- Mechanical resistance [Rms] 1.53 kg/s
- Moving mass [Mms] 20 g
- Compliance [Cms] 1.62 mm/N
- Effective diaph. diameter [D] 136 mm
- Effective piston area [Sd] 145 cm²
- Equivalent volume [Vas] 47.6 l
- Sensitivity (2.83V/1m) 88 dB
- Ratio Bl/VnRe 3.41 N/√W
- Ratio fs/Qts 106 Hz

Notes:
All Scan-Speak products are RoHS compliant.
Data are subject to change without notice.

Electrical Data

- Nominal impedance [Zn] 8 Ω
- Minimum impedance [Zmin] 6.6 Ω
- Maximum impedance [Zo] 47.7 Ω
- DC resistance [Re] 5.5 Ω
- Voice coil inductance [Le] 0.4 mH

Power Handling

- 100h RMS noise test (IEC 17.1) 100 W
- Long-term max power (IEC 17.3) 170 W

Voice Coil & Magnet Data

- Voice coil diameter 42 mm
- Voice coil height 19 mm
- Voice coil layers 2
- Height of gap 6 mm
- Linear excursion ± 6.5 mm
- Max mech. excursion ± 10 mm
- Unit weight 2.3 kg
**Advanced Parameters (Preliminary)**

### Electrical data
- Resistance $[R_{e'}]$: 5.61 Ω
- Free inductance $[L_{eb}]$: 0.115 mH
- Bound inductance $[L_e]$: 2.18 mH
- Semi-inductance $[K_e]$: 0.033 SH
- Shunt resistance $[R_{ss}]$: 105 Ω

### Mechanical Data
- Force Factor $[B_l]$: 7.62 Tm
- Moving mass $[M_{ms}]$: 19.9 g
- Compliance $[C_{ms}]$: 1.33 mm/N
- Mechanical resistance $[R_{ms}]$: 1.85 kg/s
- Admittance $[A_{ms}]$: 0.11 mm/N