

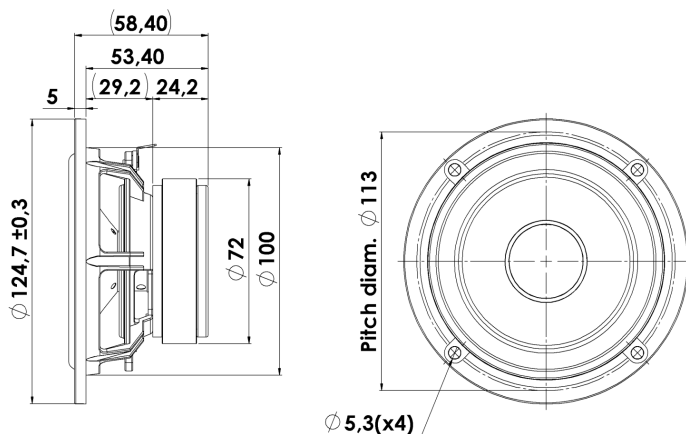


# DISCOVERY

## MIDWOOFER

## 12W/4524G00

The Discovery series offer traditional design, superior sound, a solid construction, and a wide range of variants. Combining these elements - plus a wealth of technical features and finesses - it gives our customers the possibility of acquiring a tailor-made Scan-Speak solution with very good performance at a reasonable low price point!



### KEY FEATURES:

- Wide Operating Frequency Range
- Coated NRSC Fibre Glass Cone (patent)
- Die cast Alu Chassis vented below spider
- Suitable for 2-way or 3-way (as midrange)
- Low Damping SBR Rubber Surround

#### T-S Parameters

|                               |                    |
|-------------------------------|--------------------|
| Resonance frequency [fs]      | 50 Hz              |
| Mechanical Q factor [Qms]     | 3.35               |
| Electrical Q factor [Qes]     | 0.30               |
| Total Q factor [Qts]          | 0.27               |
| Force factor [Bl]             | 4.4 Tm             |
| Mechanical resistance [Rms]   | 0.57 kg/s          |
| Moving mass [Mms]             | 6.1 g              |
| Compliance [Cms]              | 1.67 mm/N          |
| Effective diaph. diameter [D] | 86 mm              |
| Effective piston area [Sd]    | 59 cm <sup>2</sup> |
| Equivalent volume [Vas]       | 8.2 l              |
| Sensitivity (2.83V/1m)        | 88.8 dB            |
| Ratio Bl/√Re                  | 2.50 N/√W          |
| Ratio fs/Qts                  | 185 Hz             |

#### Notes:

IEC specs. refer to IEC 60268-5 third edition.  
All Scan-Speak products are RoHS compliant.  
Data are subject to change without notice.  
Datasheet updated: January 30, 2013.

#### Electrical Data

|                            |        |
|----------------------------|--------|
| Nominal impedance [Zn]     | 4 Ω    |
| Minimum impedance [Zmin]   | 3.9 Ω  |
| Maximum impedance [Zo]     | 30.8 Ω |
| DC resistance [Re]         | 3.1 Ω  |
| Voice coil inductance [Le] | 0.4 mH |

#### Power Handling

|                                |      |
|--------------------------------|------|
| 100h RMS noise test (IEC 17.1) | 40 W |
| Long-term max power (IEC 17.3) | 70 W |

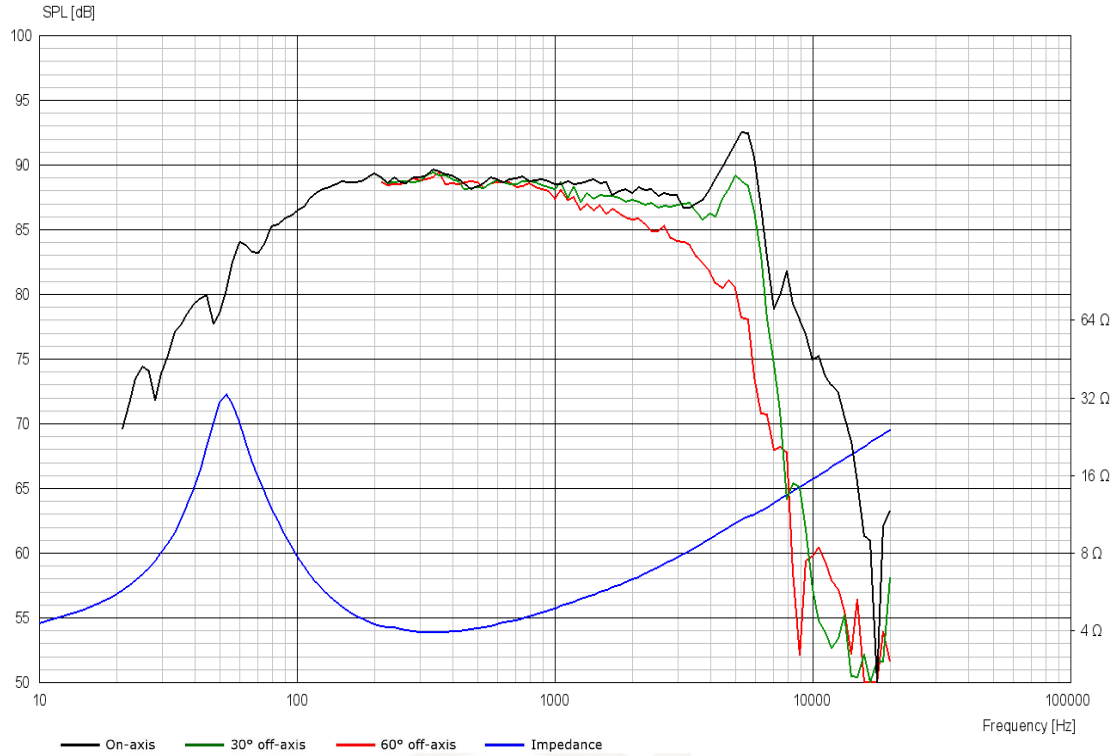
#### Voice Coil & Magnet Data

|                     |        |
|---------------------|--------|
| Voice coil diameter | 25 mm  |
| Voice coil height   | 10 mm  |
| Voice coil layers   | 2      |
| Height of gap       | 4 mm   |
| Linear excursion    | ± 3 mm |
| Max mech. excursion | ± 9 mm |
| Unit weight         | 1 kg   |

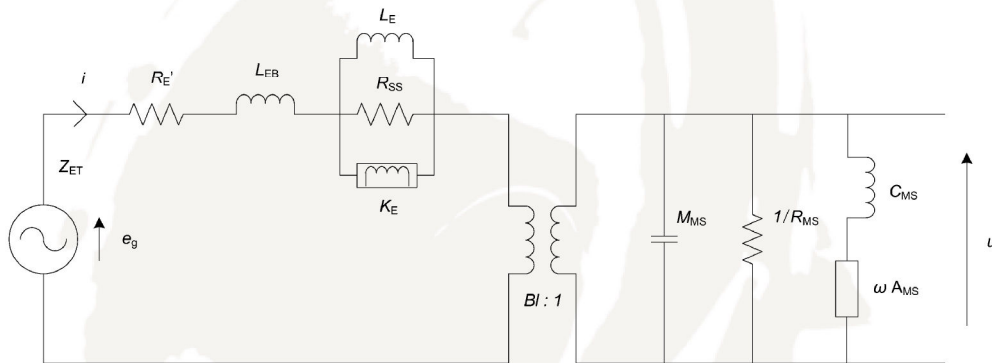


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## Advanced Parameters (Preliminary)



### Electrical data

|                               |               |
|-------------------------------|---------------|
| Resistance [ $R_{E'}$ ]       | 3.17 $\Omega$ |
| Free inductance [ $L_{EB}$ ]  | 0.056 mH      |
| Bound inductance [ $L_E$ ]    | 0.60 mH       |
| Semi-inductance [ $K_E$ ]     | 0.058 SH      |
| Shunt resistance [ $R_{SS}$ ] | 211 $\Omega$  |

### Mechanical Data

|                                    |           |
|------------------------------------|-----------|
| Force Factor [ $BI$ ]              | 4.36 Tm   |
| Moving mass [ $M_{MS}$ ]           | 6.2 g     |
| Compliance [ $C_{MS}$ ]            | 1.02 mm/N |
| Mechanical resistance [ $R_{MS}$ ] | 0.77 kg/s |
| Admittance [ $A_{MS}$ ]            | 0.16 mm/N |