

6.5" Woofer

PURE SOUND

Long Stroke driver with
Ultra Low Distortion and
High SPL Handling

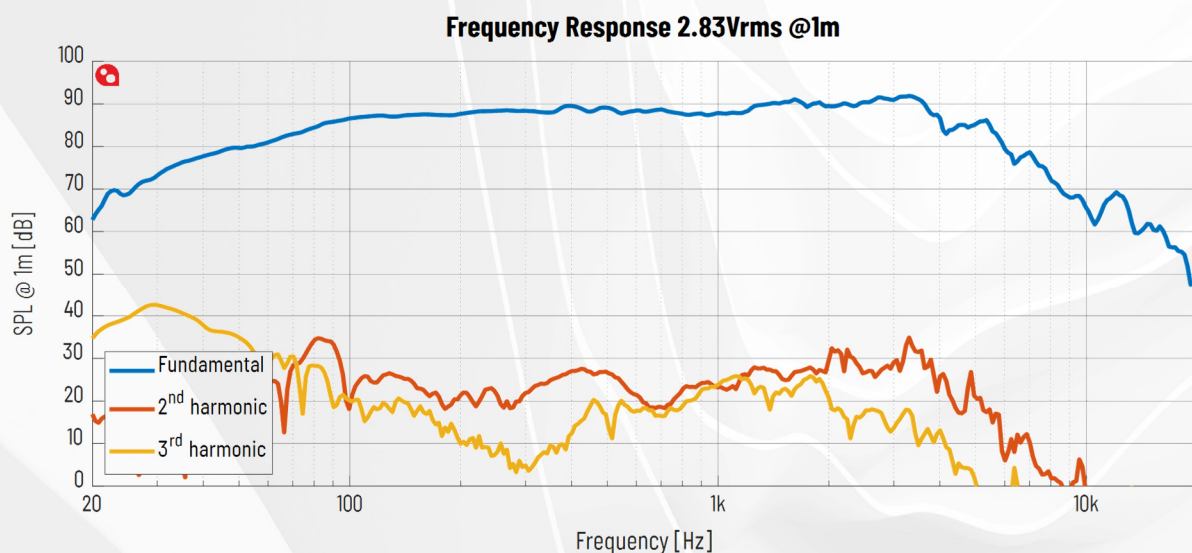


PTT6.5W04 DATA SHEET

- ⊙ Negligible Force Factor
Modulation and Surround
Radiation Distortion
- ⊙ Low Magnetic Hysteresis
Distortion
- ⊙ "Real" long-stroke
performance: distortion
remains low over full excursion
- ⊙ Uncompromised midrange
performance

KEY SPECIFICATIONS

| | |
|------------------------------|-----------------------|
| Driver size | 6.5" |
| DC resistance, R_{DC} | 3.6 Ω |
| Resonance freq., f_s | 30 Hz |
| Total Q factor, Q_{ts} | 0.29 |
| Effective piston area | 133 cm ² |
| Equivalent volume, V_{as} | 26 L |
| SPL@2.83V _{rms} /1m | 88.5 dB |
| Linear X_{max} | +/- 10.0 mm |
| Mechanical X_{max} | +/- 14.5 mm |
| IEC Power handling | 350 W |
| Cone material | Proprietary Fibre Mix |



1 Specifications

1.1 Electrical & Acoustical Parameter

| Parameter | | Typ | Unit |
|-----------|---|------|----------|
| Z_n | Nominal impedance | 4 | Ω |
| Z_{min} | Minimum impedance | 4.2 | Ω |
| Z_o | Maximum impedance | 130 | Ω |
| R_{DC} | DC resistance | 3.6 | Ω |
| L_e | Voice Coil inductance @ 1kHz 0mm | 0.37 | mH |
| SPL | SPL@2.83V _{rms} /1m, 300Hz-800Hz, ref. 20 μ Pa | 88.5 | dB |
| | SPL@1W(Z_{min})/1m, 300Hz-800Hz, ref. 20 μ Pa | 85.7 | dB |

Table 1 Electrical & Acoustical Parameters

1.2 T/S & Lumped Parameters

| Parameter | | Typ | Unit |
|-----------|---------------------------|-------|-----------------|
| f_s | Resonance frequency | 30 | Hz |
| Q_{ms} | Mechanical Q factor | 9.0 | - |
| Q_{es} | Electrical Q factor | 0.30 | - |
| Q_{ts} | Total Q factor | 0.29 | - |
| Bl | Force factor | 7.7 | N/A |
| R_{ms} | Mechanical resistance | 0.56 | kg/s |
| M_{ms} | Moving mass | 26.4 | g |
| C_{ms} | Suspension compliance | 1.04 | mm/N |
| S_d | Effective piston area | 132.7 | cm ² |
| D | Effective piston diameter | 13.0 | cm |
| V_{as} | Equivalent volume | 26.0 | L |

Table 2 T/S & Lumped Parameters

1.3 Mechanical Properties

| Parameter | | Typ | Unit |
|------------------------------|--------------------------------|----------|------|
| Excursion Properties | | | |
| X_{max} | Linear excursion | +/- 10.0 | mm |
| | Mechanical excursion | +/- 14.5 | mm |
| Physical Dimensions | | | |
| | Basket diameter | 176 | mm |
| | Cutout diameter | 145 | mm |
| | Mounting hole pattern diameter | 166 | mm |
| | Mounting hole diameter | 5.1 | mm |
| | Magnet diameter | 100 | mm |
| | Outer flange height | 3.5 | mm |
| | Build-in depth | 85.2 | mm |
| Voice Coil Properties | | | |
| | VC diameter | 39 | mm |
| | VC length | 23.7 | mm |
| | VC layers | 4 | - |
| | Airgap height | 4 | mm |
| | Winding material | CCAW | - |

Table 3 Mechanical Properties

1.4 Power Handling

| Parameter | | Typ | Unit |
|-----------|---|-----|------|
| | Long term maximum power (IEC268-5 18.2) | 350 | W |
| | Rated noise power, 100h (IEC268-5 18.4) | 100 | W |

Table 4 Power Handling