

SPECIFICATIONS

TW030WA05/06/07/08 30 mm chambered textile tweeters, 4/8 ohm

These four tweeter models share the same basic design but differ as follows:

- TW030WA05: 4 ohm, no ferro fluid
- TW030WA06: 4 ohm, with ferro fluid
- TW030WA07: 8 ohm, no ferro fluid
- TW030WA08: 8 ohm, with ferro fluid

Real high-end tweeter design with extremely low resonance frequency and distortion.

Thanks to the extensive internal venting between three internal cavities no air inside is trapped. This feature extends the usable frequency range downwards to an extend very rarely found on tweeters.

Adding the high power handling this tweeter is the natural candidate for high-end 2-way speaker systems.



FEATURES

- Precision-coated textile diaphragm for improved consistency and high-frequency extension
- Extreme internal venting through pole, voice coil former, and top plate to 3 internal chambers
- Copper-clad aluminium voice coil wire offering lower moving mass for improved efficiency and transient response
- Reflection-free rear chamber design with solid reinforcement ribs
- Large ferrite magnet for improved efficiency and transient response
- With or without high-stability light ferro fluid
- Flexible lead wires for higher power handling and larger excursion
- Black anodized magnet structure for increased power handling and reduced power compression
- Gold plated terminals to prevent oxidation for long-term reliable connection
- Delivered with EVA gasket attached for hassle-free mounting and secure cabinet sealing

NOMINAL SPECIFICATIONS

Notes	Parameter	TW030WA05	TW030WA06	TW030WA07	TW030WA08	Unit
	Nominal size	30	30	30	30	[mm]
	Nominal impedance	4	4	8	8	[ohm]
	Recommended frequency range	1.5 - 25	1.5 - 25	1.5 - 25	1.5 - 25	[kHz]
1	Sensitivity, 2.83V/1m (average SPL in range 1 - 20 kHz)	91½	91	89	88½	[dB]
2	Power handling, short term, IEC 268-5, HP 2.0kHz@12dB/oct.					[W]
2	Power handling, long term, IEC 268-5, HP 2.0kHz@12dB/oct.					[W]
2	Power handling, continuous, IEC 268-5, HP 2.0kHz@12dB/oct.	50	60	50	60	[W]
	Effective radiating area, S _d	11.5	11.5	11.5	11.5	[cm ²]
3	Resonance frequency (free air, no baffle), F _s	450	450	470	470	[Hz]
	Moving mass, incl. air (free air, no baffle), M _{ms}	0.40	0.42	0.37	0.39	[g]
3	Force factor, Bxl	2.0	2.0	2.4	2.4	[N/A]
3	Suspension compliance, C _{ms}	0.31	0.30	0.30	0.31	[mm/N]
3	Equivalent air volume, V _{as}	0.059	0.056	0.059	0.056	[lit.]
3	Mechanical Q, Q _{ms}	1.5	1.2	1.6	1.3	[-]
3	Electrical Q, Q _{es}	0.96	1.01	1.19	1.25	[-]
3	Total Q, Q _{ts}	0.59	0.55	0.68	0.64	[-]
4	Voice coil resistance, R _{DC}	3.4	3.4	6.3	6.3	[ohm]
5	Voice coil inductance, L _e (measured at 20 kHz)	0.020	0.020	0.028	0.028	[mH]
	Voice coil inside diameter	30.4	30.4	30.4	30.4	[mm]
	Voice coil winding height	1.7	1.7	1.7	1.7	[mm]
	Air gap height	2.5	2.5	2.5	2.5	[mm]
	Magnet weight	260	260	260	260	[g]
	Total unit net weight excl. packaging	0.59	0.59	0.59	0.59	[kg]
3, 5	K _{rm}	100	152	67	64	[μohm]
3, 5	E _{rm}	0.85	0.82	0.91	0.92	[-]
3, 5	K _{xm}	3.3	2.8	5.1	4.3	[mH]
3, 5	E _{xm}	0.56	0.56	0.56	0.56	[-]

Note 1 Measured in infinite baffle.

Note 2 Tested in free air.

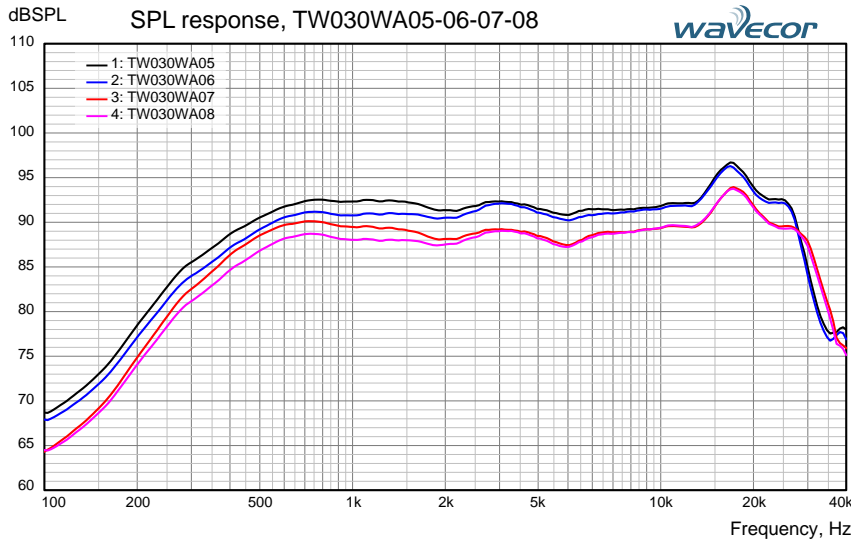
Note 3 Measured using a semi-constant current source, nominal level 2 mA.

Note 4 Measured at 20 deg. C

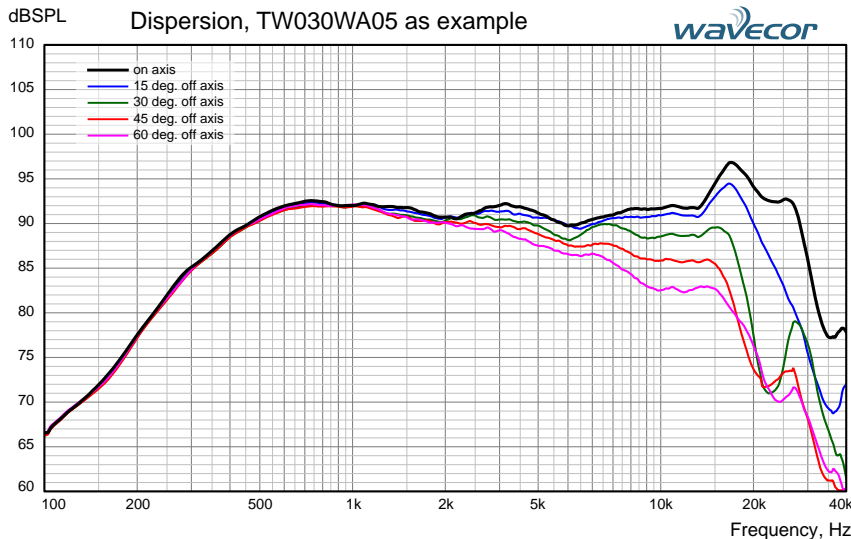
Note 5 It is generally a rough simplification to assume that loudspeaker transducer voice coils exhibit the characteristics of an inductor. Instead it is a far more accurate approach to use the more advanced model often referred to as the "Wright empirical model", also used in LEAP-4 as the TSL model (www.linearx.com), involving parameters K_{rm}, E_{rm}, K_{xm}, and E_{xm}. This more accurate transducer model is described in a technical paper [here at our web site](#).

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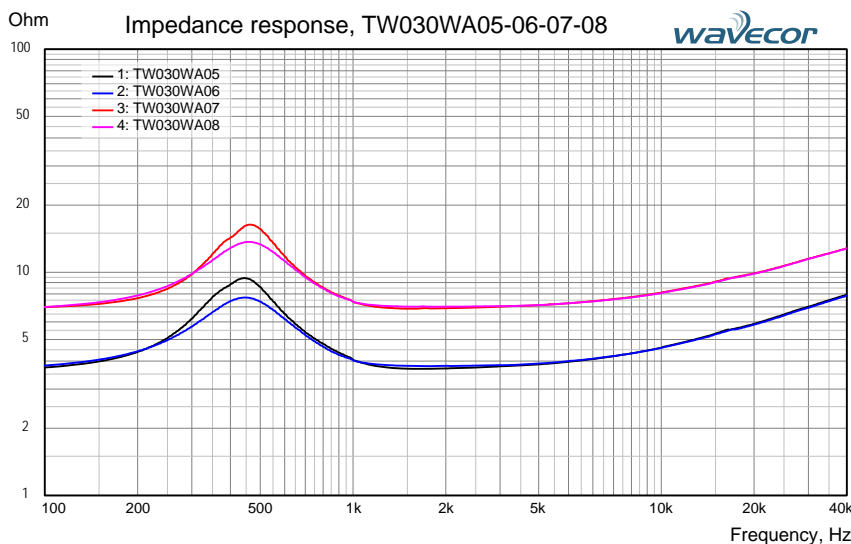
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Measuring conditions, SPL
 Driver mounting: Flush in infinite baffle
 Microphone distance: 1.0 m
 Input level: 2.83 V_{RMS}
 Smoothing: 1/6 oct.



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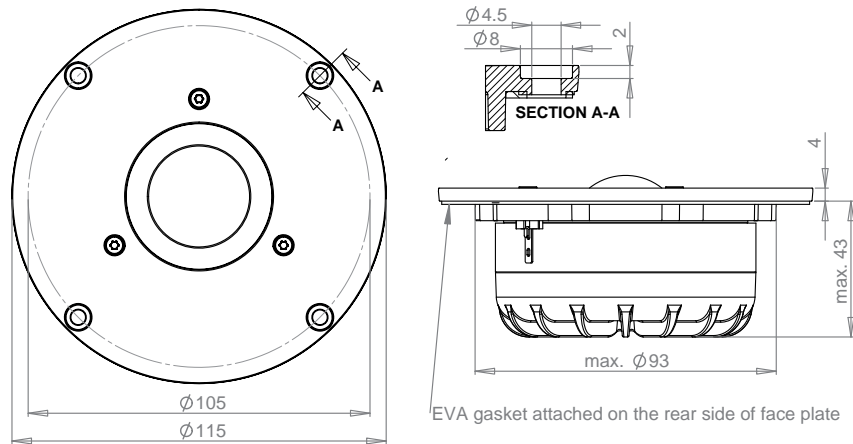


Measuring conditions, impedance
 Driver mounting: Free air, no baffle
 Input signal: Semi-current-drive,
 nominal current 2 mA
 Smoothing: None

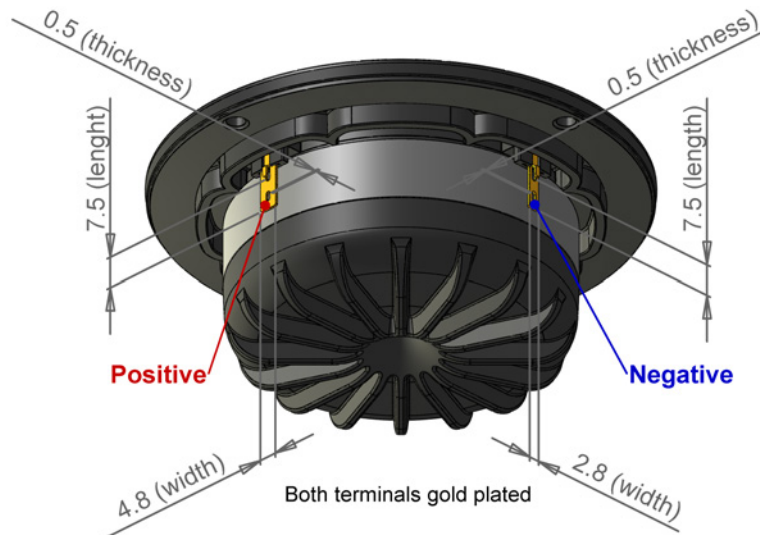
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OUTLINE DRAWING (nominal dimensions, mm)



CONNECTIONS



PACKAGING AND ORDERING INFORMATION

Part no. TW030WA05-01	4 ohm, without ferro fluid, packaged individually
Part no. TW030WA05-02	4 ohm, without ferro fluid, packaged in bulk
Part no. TW030WA06-01	4 ohm, with ferro fluid, packaged individually
Part no. TW030WA06-02	4 ohm, with ferro fluid, packaged in bulk
Part no. TW030WA07-01	8 ohm, without ferro fluid, packaged individually
Part no. TW030WA07-02	8 ohm, without ferro fluid, packaged in bulk
Part no. TW030WA08-01	8 ohm, with ferro fluid, packaged individually
Part no. TW030WA08-02	8 ohm, with ferro fluid, packaged in bulk

Latest update: December 28, 2012