

# Thiele/Small Parameters

## 44CWCS104

Re	3.825	Ohm	electrical voice coil resistance at DC
Krm	0.0032	Ohm	WRIGHT inductance model
Erm	0.925		WRIGHT inductance model
Kxm	0.02475	Ohm	WRIGHT inductance model
Exm	0.765		WRIGHT inductance model
Cmes	711.225	$\mu\text{F}$	electrical capacitance representing moving mass
Lces	28.335	mH	electrical inductance representing driver compliance
Res	132.17	Ohm	resistance due to mechanical losses
fs	35.5	Hz	driver resonance frequency
Mms	97.39	g	mechanical mass of driver diaphragm assembly including air load and voice coil
Mmd	89.6815	g	mechanical mass of voice coil and diaphragm without air load
Rms	1.0365	kg/s	mechanical resistance of total-driver losses
Cms	0.207	mm/N	mechanical compliance of driver suspension
Kms	4.845	N/mm	mechanical stiffness of driver suspension
Bl	11.702	Tm	force factor (Bl product)
Lambda	-0.0045		suspension creep factor
Qtp	0.6595		total Q-factor considering all losses
Qms	20.9625		mechanical Q-factor of driver in free air considering Rms only
Qes	0.6065		electrical Q-factor of driver in free air considering Re only
Qts	0.5895		total Q-factor considering Re and Rms only
Vas	37.86675	l	equivalent air volume of suspension
n0	0.268		reference efficiency (2 pi-radiation using Re)
Lm	86.475 dB		characteristic sound pressure level (SPL at 1m for 1W @ Re)
Lnom	86.675 dB		nominal sensitivity (SPL at 1m for 1W @ Zn)
rmse Z	2.37		root-mean-square fitting error of driver impedance Z(f)
rmse Hx	1.705		root-mean-square fitting error of transfer function Hx (f)
Sd	359.68	cm <sup>2</sup>	diaphragm area
Xmax	10.3	mm	