

# Thiele/Small Parameters

## 44CWCD104

Re	7.465	Ohm	electrical voice coil resistance at DC
Krm	0.00515	Ohm	WRIGHT inductance model
Erm	0.91		WRIGHT inductance model
Kxm	0.03185	Ohm	WRIGHT inductance model
Exm	0.785		WRIGHT inductance model
Cmes	441.08	$\mu\text{F}$	electrical capacitance representing moving mass
Lces	44.44	mH	electrical inductance representing driver compliance
Res	193.705	Ohm	resistance due to mechanical losses
fs	35.95	Hz	driver resonance frequency
Mms	95.156	g	mechanical mass of driver diaphragm assembly including air load and voice coil
Mmd	87.448	g	mechanical mass of voice coil and diaphragm without air load
Rms	1.118	kg/s	mechanical resistance of total-driver losses
Cms	0.206	mm/N	mechanical compliance of driver suspension
Kms	4.855	N/mm	mechanical stiffness of driver suspension
Bl	14.688	Tm	force factor (Bl product)
Lambda	0.002		suspension creep factor
Qtp	0.7815		total Q-factor considering all losses
Qms	19.2855		mechanical Q-factor of driver in free air considering Rms only
Qes	0.744		electrical Q-factor of driver in free air considering Re only
Qts	0.716		total Q-factor considering Re and Rms only
Vas	37.71175	l	equivalent air volume of suspension
n0	0.227		reference efficiency (2 pi-radiation using Re)
Lm	85.755	dB	characteristic sound pressure level (SPL at 1m for 1W @ Re)
Lnom	86.05	dB	nominal sensitivity (SPL at 1m for 1W @ Zn)
rmse Z	2.185		root-mean-square fitting error of driver impedance Z(f)
rmse Hx	2.315		root-mean-square fitting error of transfer function Hx (f)
Sd	359.68	cm <sup>2</sup>	diaphragm area
Xmax	10.3	mm	