

# Thiele/Small Parameters

## 44CWCD84

Re	7.555	Ohm	electrical voice coil resistance at DC
Krm	0.00305	Ohm	WRIGHT inductance model
Erm	0.94		WRIGHT inductance model
Kxm	0.02685	Ohm	WRIGHT inductance model
Exm	0.775		WRIGHT inductance model
Cmes	375.85	$\mu\text{F}$	electrical capacitance representing moving mass
Lces	32.745	mH	electrical inductance representing driver compliance
Res	141.89	Ohm	resistance due to mechanical losses
fs	45.4	Hz	driver resonance frequency
Mms	56.358	g	mechanical mass of driver diaphragm assembly including air load and voice coil
Mmd	53.136	g	mechanical mass of voice coil and diaphragm without air load
Rms	1.0575	kg/s	mechanical resistance of total-driver losses
Cms	0.2185	mm/N	mechanical compliance of driver suspension
Kms	4.59	N/mm	mechanical stiffness of driver suspension
Bl	12.2465	Tm	force factor (Bl product)
Lambda	0.0035		suspension creep factor
Qtp	0.8275		total Q-factor considering all losses
Qms	15.207		mechanical Q-factor of driver in free air considering Rms only
Qes	0.8095		electrical Q-factor of driver in free air considering Re only
Qts	0.7685		total Q-factor considering Re and Rms only
Vas	12.50925	l	equivalent air volume of suspension
n0	0.1385		reference efficiency (2 pi-radiation using Re)
Lm	83.62	dB	characteristic sound pressure level (SPL at 1m for 1W @ Re)
Ln0m	83.87	dB	nominal sensitivity (SPL at 1m for 1W @ Zn)
rmse Z	3.17		root-mean-square fitting error of driver impedance Z(f)
rmse Hx	1.865		root-mean-square fitting error of transfer function Hx (f)
Sd	201.06	cm <sup>2</sup>	diaphragm area
Xmax	8.6	mm	