

# Thiele/Small Parameters

## 42CWQ104

Re	6.585	Ohm	electrical voice coil resistance at DC
Krm	0.01195	Ohm	WRIGHT inductance model
Erm	0.885		WRIGHT inductance model
Kxm	0.07585	Ohm	WRIGHT inductance model
Exm	0.745		WRIGHT inductance model
Cmes	315.56	µF	electrical capacitance representing moving mass
Lces	47.78	mH	electrical inductance representing driver compliance
Res	106.53	Ohm	resistance due to mechanical losses
fs	41	Hz	driver resonance frequency
Mms	177.437	g	mechanical mass of driver diaphragm assembly including air load and voice coil
Mmd	170.153	g	mechanical mass of voice coil and diaphragm without air load
Rms	5.278	kg/s	mechanical resistance of total-driver losses
Cms	0.085	mm/N	mechanical compliance of driver suspension
Kms	11.785	N/mm	mechanical stiffness of driver suspension
Bl	23.713	Tm	force factor (Bl product)
Lambda	-0.006		suspension creep factor
Qtp	0.6195		total Q-factor considering all losses
Qms	8.6625		mechanical Q-factor of driver in free air considering Rms only
Qes	0.5355		electrical Q-factor of driver in free air considering Re only
Qts	0.5045		total Q-factor considering Re and Rms only
Vas	14.4242	l	equivalent air volume of suspension
n0	0.1785		reference efficiency (2 pi-radiation using Re)
Lm	84.715	dB	characteristic sound pressure level (SPL at 1m for 1W @ Re)
Lnom	85.56	dB	nominal sensitivity (SPL at 1m for 1W @ Zn)
rmse Z	4.04		root-mean-square fitting error of driver impedance Z(f)
rmse Hx	2.01		root-mean-square fitting error of transfer function Hx (f)
Sd	346.36	cm <sup>2</sup>	diaphragm area
Xmax	16.25	mm	