

# Thiele/Small Parameters

## 45L7R102

Re	3.48	Ohm	electrical voice coil resistance at DC
Krm	0.00765	Ohm	WRIGHT inductance model
Erm	0.895		WRIGHT inductance model
Kxm	0.0561	Ohm	WRIGHT inductance model
Exm	0.725		WRIGHT inductance model
Cmes	669.6	µF	electrical capacitance representing moving mass
Lces	39.135	mH	electrical inductance representing driver compliance
Res	58.22	Ohm	resistance due to mechanical losses
fs	31.1	Hz	driver resonance frequency
Mms	200.8405	g	mechanical mass of driver diaphragm assembly including air load and voice coil
Mmd	190.6715	g	mechanical mass of voice coil and diaphragm without air load
Rms	5.1555	kg/s	mechanical resistance of total-driver losses
Cms	0.1305	mm/N	mechanical compliance of driver suspension
Kms	7.67	N/mm	mechanical stiffness of driver suspension
Bl	17.319	Tm	force factor (Bl product)
Lambda	0.0355		suspension creep factor
Qtp	0.529		total Q-factor considering all losses
Qms	7.6155		mechanical Q-factor of driver in free air considering Rms only
Qes	0.455		electrical Q-factor of driver in free air considering Re only
Qts	0.4295		total Q-factor considering Re and Rms only
Vas	34.57385	l	equivalent air volume of suspension
n0	0.2195		reference efficiency (2 pi-radiation using Re)
Lm	85.61	dB	characteristic sound pressure level (SPL at 1m for 1W @ Re)
Lnom	86.22	dB	nominal sensitivity (SPL at 1m for 1W @ Zn)
rmse Z	2.25		root-mean-square fitting error of driver impedance Z(f)
rmse Hx	1.86		root-mean-square fitting error of transfer function Hx (f)
Sd	432.64	cm²	diaphragm area
Xmax	13.9	mm	