

# Technical Specifications ICEpower1000A

## Audio Specifications

Symbol	Parameter	Conditions	Min	Typ	Max	Units
THD+N	THD+N, in 4 $\square$ (AES17 measurement filter)	$f = 1\text{kHz}, P_o = 1\text{W}$		0.008	0.01	%
THD+N	Maximal THD+N, 4 $\square$ (AES17 filter)	$10\text{Hz} < f < 1\text{kHz}$ $100\text{mW} < P_o < 1000\text{W}$		0.09		%
THD	Low level THD	$f = 1\text{kHz}, 100\text{mW}, R_L = 4\square$		0.0005		$\square$
$V_{w,o}$	Output referenced idle noise	A-weighted $10\text{Hz} < f < 20\text{kHz}$	70	80	100	$\square$ V
D	Dynamic range	A-weighted		120		dB
$V_{OFF,DIFF}$	Output referenced offset	Terminated input			$\square$ 40	mV
AV	Nominal Voltage Gain	$f = 1\text{kHz}$	27.8	28.1	28.4	dB
f	Frequency response	20Hz - 1kHz, all loads.		$\square$ 0/ $\square$ -0.5	$\square$ 1	dB
$f_u$	Upper bandwidth limit (-3dB)	$Z_L = 4\square$		3		kHz
$D_f$	Damping factor	$Z_L = 8\square, f = 100\text{Hz}$		2000		
$Z_L$	Load impedance range		2	4	$\square$	$\square$
PSRR	Power Supply Rejection Ratio of $V_p$	Voltage ripple @ $f = 100 - 120\text{Hz}$	60			dB

## Power Specifications

Symbol	Parameter	Conditions	Min	Typ	Max	Units
$V_p$	Power Supply	Operation	40	120	125	V
$P_o$	Max output power 1kHz @ 0.1% THD+N (AES17 filter)	$R_L = 4\square, V_p = 120\text{V}$ $R_L = 6\square, V_p = 120\text{V}$ $R_L = 8\square, V_p = 120\text{V}$		1000 800 600		W
$I_{vp}$	Quiescent current	$V_p = 120\text{V}$	20	35	40	mA
$I_{vcc}$	Quiescent current	$V_{cc} = 12\text{V}$		200	230	mA
$I_{vss}$	Quiescent current	$V_{ss} = -12\text{V}$		25		mA
$\square$	Power stage efficiency	$R_L = 8\square, P_o = 100\text{W}$		93		%

