

## **Amplifier Heat Loss**

Heat losses are the thermal emissions from an amplifier while it is operating. It comes from dissipated waste power—i.e., real AC power in minus audio power out. Measurements are provided for various loads at idle, 1/8 of average full power, 1/3 of average full power, and full power, with all channels driven simultaneously. For typical usage, use the idle and 1/8 power figures. Where an asterisk (\*) appears, the data was not available at press time. The designation "na" means not applicable to the particular amplifier model and "nr" means the model is not rated for the particular load. This data is measured from representative samples; due to production tolerances, actual heat emissions may vary slightly from one unit to another. Bridged mono into 8 ohms is equivalent to 4 ohms per channel.

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	Idle Thermal idle or w low signa Not all m	ith very al level. nodels	1/8 Power  Thermal loss at 1/8 of full power is measured with pink noise. It approximates operating with music or voice with light clipping and repesents the amplifier's typical "clean" maximum level, without audible clipping. Use these figures for typical maximum level								1/3 Power  Thermal loss at 1/3 of full power is measured with pink noise. It approximates operating with music or voice with very heavy clipping and a very compressed dynamic range.								Full Power Thermal loss at full power is measured with a 1 kHz sine wave. However, it does not represent any real-world operating condition.								
	Load per channel ->		·> 8	>8Ω		4Ω		2Ω		25V-70V-		8Ω		$4\Omega$		$2\Omega$		25V-70V-		8Ω		$4\Omega$		2Ω		25V-70V-	
Model	BTU/hr	kcal/hr	BTU/hr	kcal/hr	BTU/hr	kcal/hr	BTU/hr	kcal/hr	BTU/hr	kcal/hr	BTU/hr	kcal/hr	BTUI/hr	kcal/hr	BTU/hr	kcal/hr	BTU/hr	kcal/hr	BTU	/hr kcal/	r BTU/hr	kcal/hr	BTU/hr	kcal/hr	BTU/hr	kcal/hr	
<b>Current models</b>	S																										
ISA280	85	21	556	140	942	237	1570	396	na	na	655	165	1215	306	2171	547	na	na	78	5 198	1502	379	2901	731	na	na	
ISA450	85	21	768	194	1331	335	2259	569	na	na	922	232	1696	427	3096	780	na	na	100	7 254	1980	499	3959	998	na	na	
ISA750	273	69	819	206	1365	344	2218	559	na	na	1345	339	2355	593	3959	998	na	na	157	0 396	3236	815	6314	1591	na	na	
ISA1350	297	75	952	240	1662	419	2679	675	*	*	1491	376	2877	725	4754	1198	*	*	207	5 523	4290	1081	8819	2222	*	*	
ISA300Ti	85	21	556	140	942	237	1570	396	1505	379	655	165	1215	306	2171	547	1993	502	78	5 198	1502	379	2901	731	2423	611	
ISA500Ti	85	21	768	194	1331	335	2259	569	1638	413	922	232	1696	427	3096	780	2925	737	100	7 254	1980	499	3959	998	2696	679	
ISA800Ti	273	69	819	206	1365	344	2218	559	1713	432	1345	339	2355	593	3959	998	3143	792	157	0 396	3236	815	6314	1591	4778	1204	