



# DPA-Q(n) Series 8-Channel Amplifier Heat Loss

January 2020

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; into 4 ohms is equivalent to 2 ohms per channel. The differences in heat loss among 100-, 120-, and 230-volt mains supplies are statistically insignificant.

Model	<b>Idle</b>		<b>Mute All</b>		<b>Standby</b>		<b>1/8 Power</b>										<b>1/3 Power</b>										
	Thermal loss at idle or with very low signal level.		Thermal loss with all channels muted		Thermal loss with the amplifier in standby.		Thermal loss at 1/8 of full power is measured with a pink noise signal. It approximates operating with music or voice with light clipping and represents the amplifier's typical "clean" maximum level, without audible clipping. Use these figures for typical maximum level operation.										Thermal loss at 1/3 of full power is measured with a 1 kHz sine wave signal. It approximates operating with music or voice with very heavy clipping and a very compressed dynamic range. This data describes the maximum operating parameters of the amplifier under working conditions reproducing music or voice. Using the amplifier under this condition for prolonged periods of time, though, is not recommended.										
							8Ω		4Ω		2Ω		70V		100V		8Ω		4Ω		2Ω		70V		100V		
	BTU/hr	kcal/hr	BTU/hr	kcal/hr	BTU/hr	kcal/hr	BTU/hr	kcal/hr	BTU/hr	kcal/hr	BTU/hr	kcal/hr	BTU/hr	kcal/hr	BTU/hr	kcal/hr	BTU/hr	kcal/hr	BTU/hr	kcal/hr	BTU/hr	kcal/hr	BTU/hr	kcal/hr	BTU/hr	kcal/hr	
<b>Current models</b>																											
DPA-4K8Q, DPA-4K8Qn	621	156	153	39	150	38	529	133	805	203	1208	304	587	148	512	129	843	212	1444	364	2468	622	1079	272	833	210	
DPA-8K8Q, DPA-8K8Qn	672	169	166	42	157	40	1229	310	1829	461	1181	298	1290	325	1184	298	1632	411	2928	738	2532	638	1778	448	1618	408	