MP-A Series Amplifier Heat Loss—120 V

Jul-16

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.

	Standby Thermal loss with the amplifier in standby.		***Idle*** Thermal loss at idle or with very low signal level.		***1/8 Power*** Thermal loss at 1/8 of full power is measured with pink noise and/or a sine wave. 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 operation.								***1/3 Power*** Thermal loss at 1/3 of full power is measured with pink noise and/or a sine wave. 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 ->					**8Ω**		**4Ω**		**70V**		**100V**		**8Ω**		**4Ω**		**70V**		**100V**		**8Ω**		**4Ω**		**70V**		**100V**	
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**	**BTU/hr**	**kcal/hr**	**BTUl/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**
Current models																												
MP-A20V	3	1	47	12	98	25	130	33	89	23	102	26	164	41	228	57	149	38	159	40	457	115	556	140	498	126	444	112
MP-A40V	4	1	90	23	184	46	228	57	191	48	215	54	309	78	432	109	305	77	301	76	993	250	1106	279	1126	284	887	224
MP-A80V	7	2	176	44	381	96	485	122	352	89	322	81	808	204	1055	266	528	133	480	121	2027	511	2191	552	1502	378	1345	339

MP-A Series Amplifier Heat Loss—230 V

Jul-16

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.

	Standby Thermal loss with the amplifier in standby.		***Idle*** Thermal loss at idle or with very low signal level.		***1/8 Power*** Thermal loss at 1/8 of full power is measured with pink noise and/or a sine wave. 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 operation.								***1/3 Power*** Thermal loss at 1/3 of full power is measured with pink noise and/or a sine wave. 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 ->					**8Ω**		**4Ω**		**70V**		**100V**		**8Ω**		**4Ω**		**70V**		**100V**		**8Ω**		**4Ω**		**70V**		**100V**	
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**	**BTU/hr**	**kcal/hr**	**BTUl/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**
Current models																												
MP-A20V	2	1	55	14	102	26	122	31	106	27	102	26	173	44	228	57	156	39	166	42	383	97	522	132	334	84	352	89
MP-A40V	3	1	102	26	198	50	244	61	208	52	212	53	317	80	471	119	305	77	298	75	706	178	1082	273	662	167	683	172
MP-A80V	7	2	205	52	397	100	515	130	352	89	345	87	786	198	1077	272	524	132	463	117	1635	412	2382	600	922	232	898	226

MP-A Series Amplifier Heat Loss—100 V

Jul-16

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.

	Standby Thermal loss with the amplifier in standby.		***Idle*** Thermal loss at idle or with very low signal level.		***1/8 Power*** Thermal loss at 1/8 of full power is measured with pink noise and/or a sine wave. 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 operation.								***1/3 Power*** Thermal loss at 1/3 of full power is measured with pink noise and/or a sine wave. 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 ->					**8Ω**		**4Ω**		**70V**		**100V**		**8Ω**		**4Ω**		**70V**		**100V**		**8Ω**		**4Ω**		**70V**		**100V**	
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**	**BTU/hr**	**kcal/hr**	**BTUl/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**
Current models																												
MP-A20V	3	1	46	12	100	25	130	33	102	26	102	26	190	48	248	62	156	39	163	41	239	60	222	56	266	67	246	62
MP-A40V	5	1	87	22	188	47	233	59	191	48	198	50	353	89	470	118	325	82	319	80	311	78	348	88	413	104	536	135
MP-A80V	7	2	150	38	380	96	501	126	317	80	333	84	791	199	1138	287	569	143	506	128	840	212	863	217	887	224	887	224