



Amplifier Heat Losses

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 "n/a" means *not applicable* to the particular amplifier model. This data is measured from representative samples; due to production tolerances, actual heat emissions may vary slightly from one unit to another.

Model	<i>Idle</i>		<i>1/8 Power</i>								<i>1/3 Power</i>								<i>Full Power</i>							
	Thermal loss at idle or with very low signal level. Not all models were tested.		Thermal loss at 1/8 of full power is measured with pink noise. 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 pink noise. It approximates operating with music or voice with very heavy clipping and a very compressed dynamic range.								Thermal loss at full power is measured with a 1 kHz sine wave. However, it does not represent any real-world operating condition.							
	BTU/hr	kcal/hr	8Ω		4Ω		2Ω		70V		8Ω		4Ω		2Ω		70V		8Ω		4Ω		2Ω		70V	
		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	
Current Models																										
RMX 850	85	21	577	145	1068	269	1669	421		696	175	1355	341	2157	544			799	201	1509	380	2853	719			
RMX 1450	79	20	887	224	1454	366	2597	654		1061	267	1969	496	3733	941			1007	254	1870	471	3734	941			
RMX 1850HD	280	71	703	177	1072	270	1775	447		1079	272	2017	508	3242	817			1242	313	2321	585	4608	1161			
RMX 2450	273	69	819	206	1365	344	2218	559		1758	443	2880	726	4997	1259			1587	400	3294	830	6314	1591			
RMX 4050HD	273	69	1030	260	1672	421	2901	731		1583	399	3331	839	5352	1349			2048	516	4754	1198	9700	2445			
RMX 5050	273	69	1317	332	2485	626	3089	778		2184	550	3983	1004	5983	1508			2823	711	5529	1393	12082	3045			
ISA 280	85	21	556	140	942	237	1570	396		665	168	1215	306	2171	547			785	198	1502	379	2901	731			
ISA 450	85	21	768	194	1331	335	2259	569		922	232	1696	427	3096	780			1007	254	1980	499	3959	998			
ISA 750	273	69	819	206	1365	344	2218	559		1345	339	2355	593	3959	998			1570	396	3236	816	6314	1591			
ISA 300T	85	21	556	140	942	237	1570	396	1505	379	665	168	1215	306	2171	547	1993	785	198	1502	379	2901	731	2423	611	
ISA 500T	85	21	768	194	1331	335	2259	569	1638	413	922	232	1696	427	3096	780	2925	1007	254	1980	499	3959	998	2696	679	
ISA 800T	273	69	819	206	1365	344	2218	559	1713	432	1345	339	2355	593	3959	998	3143	1570	396	3236	816	6314	1591	4778	1204	
PLX 1202	109	27	567	143	993	250	1741	439		724	182	1246	314	2253	568			717	181	1297	327	2423	611			
PLX 1602	109	27	928	234	1536	387	2559	645		1113	280	1876	473	3314	835			1031	260	2014	508	4096	1032			
PLX 2402	143	36	676	170	1311	330	2253	568		1085	273	1911	482	3191	804			1246	314	2321	585	4608	1161			
PLX 3002	170	43	901	227	1529	385	2986	753		1410	355	2560	645	4266	1075			1707	430	3072	774	5836	1471			
PLX 3402	195	49	1195	301	2133	538	3976	1002		1765	445	2331	587	4584	1155			2048	516	3891	981	8533	2150			
PL 3.4	188	47	1075	271	1925	485	2935	740		1375	347	2734	689	4809	1212			1986	501	3771	950	7765	1957			
PL 3.8x	188	47	1201	303	1812	457	2983	752		1968	496	2899	731	5239	1320			2048	516	4096	1032	8191	2064			
PL 4.0	205	52	1792	452	2645	667	3713	936		2891	729	3983	1004	6358	1602			3106	783	5939	1497	10649	2684			
PL 6.0 II	816	206	1519	383	2048	516	3942	993		2331	587	3389	854	6826	1720			2765	697	6007	1514	11092	2795			
CX 302V	201	51	n/a	n/a	n/a	n/a	n/a	n/a	1123	283	n/a	n/a	n/a	n/a	n/a	1294	326	n/a	n/a	n/a	n/a	n/a	n/a	1079	272	
CX 602V	164	41	1785	450	n/a	n/a	n/a	n/a	1785	450	2263	570	n/a	n/a	n/a	2263	570	2055	518	n/a	n/a	n/a	n/a	2055	518	
CX 1202V	201	51	1222	308	2177	549	n/a	n/a	2177	549	1468	370	2604	656	n/a	n/a	2604	656	1945	490	4232	1067	n/a	n/a	4232	1067
CX 204V	140	35	n/a	n/a	n/a	n/a	n/a	n/a	1741	439	n/a	n/a	n/a	n/a	n/a	n/a	2321	585	n/a	n/a	n/a	n/a	n/a	1980	499	
CX 108V	89	22	n/a	n/a	n/a	n/a	n/a	n/a	1150	290	n/a	n/a	n/a	n/a	n/a	n/a	1601	403	n/a	n/a	n/a	n/a	n/a	1160	292	
CX 302	109	27	567	143	993	250	1741	439		724	182	1246	314	2253	568			717	181	1297	327	2423	611			
CX 502	109	27	928	234	1536	387	2560	645		1113	280	1876	473	3314	835			1031	260	2014	508	4096	1032			
CX 702	143	36	676	170	1311	330	2253	568		1085	273	1911	482	3191	804			1246	314	2321	585	4608	1161			
CX 902	171	43	901	227	1529	385	2986	753		1410	355	2560	645	4266	1075			1707	430	3072	774	5836	1471			
CX 1102	195	49	1195	301	2133	538	3976	1002		1765	445	2331	587	4584	1155			2048	516	3891	981	8533	2150			
CX 254	116	29	1137	287	1809	456	3085	777		1451	366	2379	600	4437	1118			1341	338	2236	564	5266	1327			
CX404	119	30	1570	396	2560	645	n/a	n/a		2143	540	3369	849	n/a	n/a			1973	497	4061	1023	n/a	n/a			
CX 168	102	26	1126	284	2014	508	n/a	n/a		1526	385	2512	633	n/a	n/a			1491	376	3328	839	n/a	n/a			
PL 218	109	27	898	226	1433	361	2611	658		1034	261	1741	439	2969	748			891	225	1843	464	4027	1015			
PL 224	143	36	768	194	1256	317	2048	516		1031	260	1700	428	2901	731			1065	268	2195	553	4669	1177			
PL 230	171	43	901	227	1529	385	2986	753		1410	355	2560	645	4266	1075			1707	430	3072	774	5836	1471			
PL 236	195	49	1229	310	2133	538	3488	879		1898	478	3184	802	4485	1130			2034	513	4164	1049	8225	2073			
DCA 1222	109	27	669	169	1116	281	1877	473		860	217	1621	409	2150	542			788	199	1406	354	2389	602			
DCA 1622	109	27	928	234	1536	387	2560	645		1113	280	1876	473	3314	835			1031	260	2014	508	4096	1032			
DCA 2422	143	36	676	170	1311	330	2253	568		1085	273	1911	482	3191	804			1246	314	2321	585	4608	1161			
DCA 3022	171	43	901	227	1529	385	2986	753		1410	355	2560	645	4266	1075			1707	430	3072	774	5836	1471			
DCA 3422	195	49	1195	301	2133	538	3976	1002		1765	445	2331	587	4584	1155			2048	516	3891	981	8533	2150			
DCA 1824	116	29	1137	287	1809	456	3085	777		1451	366	2379	600	4437	1118			1341	338	2236	564	5266	1327			
DCA 1644	119	30	1570	396	2560	645	n/a	n/a		2143	540	3369	849	n/a	n/a			1972	497	4061	1023	n/a	n/a			



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	BTU/hr	kcal/hr	8Ω		4Ω		2Ω		70V		8Ω		4Ω		2Ω		70V		8Ω		4Ω		2Ω		70V				
		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				
Recently Discontinued Models																													
USA 400	*	*	353	89	604	152	951	240						426	107	773	195	1256	316					448	113	924	233	1724	434
USA 900	*	*	763	192	755	190	2093	527						921	232	966	243	2763	696					968	244	1155	291	3792	956
USA 1310	*	*	1130	285	1978	499	3805	959						1364	344	2531	638	5023	1266					1433	361	3027	763	6894	1737
1400	*	*	763	192	1359	343	2093	527						921	232	1739	438	2763	696					968	244	2080	524	3792	956
MX 700	*	*	424	107	680	171	1332	336						511	129	869	219	1758	443					538	135	1040	262	2413	608
MX 2000a	*	*	937	236	1287	324	2167	546						1463	369	2290	577	3841	968					2027	511	3416	861	4928	1242
MX 1500a	*	*	687	173	943	238	1529	385						1042	263	1614	407	2983	752					1508	380	2580	650	5396	1360
MX 3000a	*	*	1863	470	3184	803	4751	1197						2764	697	6301	1588	9674	2438					1857	468	4390	1106	8737	2202
PL 1.0	164	41	730	184	1055	266	1683	424						932	235	1297	327	2273	573					761	192	1444	364	2788	703
PL 1.0HV	212	53	993	250	1522	384	n/a	n/a						1106	279	1898	478	n/a	n/a					1072	270	2065	520	n/a	n/a
PL 1.4	215	54	645	163	993	250	1580	398						1041	262	1580	398	2260	570					959	242	1812	457	4126	1040
PL 1.5x	338	85	594	150	1024	258	1744	440						952	240	1532	386	2696	679					1014	256	1962	494	3645	919
PL 1.6HVx	369	93	990	249	1707	430	n/a	n/a						1621	409	2474	623	n/a	n/a					1553	391	3266	823	n/a	n/a
PL 1.8	171	43	840	212	1249	315	1966	495						1676	422	2345	591	3563	898					1375	347	2509	632	4870	1227
PL 2.0HV	498	126	1171	295	1816	458	n/a	n/a						2157	544	2928	738	n/a	n/a					2137	539	4314	1087	n/a	n/a
PL 2.4MB	143	36	782	197	1188	299	2000	504						1130	285	1727	435	3457	871					1707	430	2710	683	5137	1295
PL 6.0PFC	682	172	2048	516	2730	688	4096	1032						3072	774	5120	1290	7850	1978					4437	1118	8874	2236	13652	3441
PL 9.0PFC	758	191	2348	592	3338	841	5038	1270						3973	1001	6147	1549	9782	2465					5604	1412	11208	2825	17399	4385