



# Application Note TN255

## T SERIES AMPLIFIERS

### AC Power Draw & Thermal Dissipation

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#### Model T20-44

Sleep mode (slow wake up)					
AC Mains Power Draw (Watts)	Current Draw (Amps)		Thermal Dissipation		
	120Vac	230Vac	Watts	kcal/hr	btu/hr
4.5	0.4	0.2	4.5	4	15

Standby mode (fast wake up)					
AC Mains Power Draw (Watts)	Current Draw (Amps)		Thermal Dissipation		
	120Vac	230Vac	Watts	kcal/hr	btu/hr
60	1.0	0.5	60	52	205

Running with no audio signal					
AC Mains Power Draw (Watts)	Current Draw (Amps)		Thermal Dissipation		
	120Vac	230Vac	Watts	kcal/hr	btu/hr
195	2.9	1.5	195	168	665

Running in 2 Ohm mode* (all channels driven)						
Load (Ohms)	Signal duty & Crest Factor	Input power (Watts)	Current Draw (Amps)		Thermal Dissipation	
			120Vac	230Vac	Watts	kcal/hr
2	1/8, cf = 4.0 (12dB)	3000	33.5**	17.5	500	430
4	1/4, cf = 2.8 (9dB)	3475	38.8**	20.3	475	408
4	1/8, cf = 4.0 (12dB)	1780	19.7	10.3	280	241
8	1/4, cf = 2.8 (9dB)	1750	19.2	10.0	250	215
8	1/8, cf = 4.0 (12dB)	975	11.0	5.8	225	193
						767

#### Notes

- The amplifier was configured to have no audio processing
- Measurements were performed with a Hameg HM8115-2 power analyser
- All measurements were done at 230Vac, 50Hz.
- The Current Draw figures for 120Vac are calculated
- \*The T20-44 does not have 4 & 8 Ohm Low Z modes
- \*\*The EBP limiter should be set to 32A, but will not activate on any sensible program material

# Model T10-44

Sleep mode (slow wake up)					
AC Mains Power Draw (Watts)	Current Draw (Amps)		Thermal Dissipation		
	120Vac	230Vac	Watts	kcal/hr	btu/hr
4.5	0.4	0.2	4.5	4	15

Standby mode (fast wake up)					
AC Mains Power Draw (Watts)	Current Draw (Amps)		Thermal Dissipation		
	120Vac	230Vac	Watts	kcal/hr	btu/hr
60	1.0	0.5	60	52	205

Running with no audio signal					
AC Mains Power Draw (Watts)	Current Draw (Amps)		Thermal Dissipation		
	120Vac	230Vac	Watts	kcal/hr	btu/hr
195	2.9	1.5	195	168	665

Running (all channels driven)								
Load Mode	Load (Ohms)	Signal duty & Crest Factor	Input power (Watts)	Input Current (Amps)		Thermal Dissipation		
				120Vac	230Vac	Watts	kcal/hr	btu/hr
2 Ohm	2	1/8, cf = 4.0 (12dB)	1600	19.2	10.0	350	301	1194
2 Ohm	4	1/4, cf = 2.8 (9dB)	1560	18.7	9.8	310	267	1058
2 Ohm	4	1/8, cf = 4.0 (12dB)	875	11.1	5.8	250	215	853
4 Ohm	4	1/4, cf = 2.8 (9dB)	2920	31.0	16.2	420	361	1133
4 Ohm	4	1/8, cf = 4.0 (12dB)	1550	19.2	10.0	300	258	1024
4 Ohm	8	1/4, cf = 2.8 (9dB)	1535	18.4	9.6	285	245	973
4 Ohm	8	1/8, cf = 4.0 (12dB)	864	10.9	5.7	239	206	816
8 Ohm	8	1/4, cf = 2.8 (9dB)	1800	21.1	11.0	300	258	1024
8 Ohm	8	1/8, cf = 4.0 (12dB)	975	11.5	6.0	225	193	768

## Notes

- The amplifier was configured to have no audio processing
- Measurements were performed with a Hameg HM8115-2 power analyser
- All measurements were done at 230Vac, 50Hz.
- The Current Draw figures for 120Vac are calculated

# Model T06-44

Sleep mode (slow wake up)					
AC Mains Power Draw (Watts)	Current Draw (Amps)		Thermal Dissipation		
	120Vac	230Vac	Watts	kcal/hr	btu/hr
4.5	0.4	0.2	4.5	4	15

Standby mode (fast wake up)					
AC Mains Power Draw (Watts)	Current Draw (Amps)		Thermal Dissipation		
	120Vac	230Vac	Watts	kcal/hr	btu/hr
60	1.0	0.5	60	52	205

Running with no audio signal					
AC Mains Power Draw (Watts)	Current Draw (Amps)		Thermal Dissipation		
	120Vac	230Vac	Watts	kcal/hr	btu/hr
132	2.9	1.5	132	114	450

Running (all channels driven)								
Load Mode	Load (Ohms)	Signal duty & Crest Factor	Input power (Watts)	Input Current (Amps)		Thermal Dissipation		
				120Vac	230Vac	Watts	kcal/hr	btu/hr
2 Ohm	2	1/8, cf = 4.0 (12dB)	1022	12.8	6.7	272	234	928
2 Ohm	4	1/4, cf = 2.8 (9dB)	991	12.5	6.5	241	207	822
2 Ohm	4	1/8, cf = 4.0 (12dB)	563	7.9	4.1	188	162	642
4 Ohm	4	1/4, cf = 2.8 (9dB)	1780	21.1	11.0	280	241	955
4 Ohm	4	1/8, cf = 4.0 (12dB)	970	11.5	6.0	220	189	751
4 Ohm	8	1/4, cf = 2.8 (9dB)	963	11.5	6.0	213	183	727
4 Ohm	8	1/8, cf = 4.0 (12dB)	552	7.3	3.8	177	152	604
8 Ohm	8	1/4, cf = 2.8 (9dB)	1695	19.2	10.0	195	168	665
8 Ohm	8	1/8, cf = 4.0 (12dB)	940	11.5	6.0	190	163	648

## Notes

- The amplifier was configured to have no audio processing
- Measurements were performed with a Hameg HM8115-2 power analyser
- All measurements were done at 230Vac, 50Hz.
- The Current Draw figures for 120Vac are calculated

# Model T10-48

Sleep mode (slow wake up)					
AC Mains Power Draw (Watts)	Current Draw (Amps)		Thermal Dissipation		
	120Vac	230Vac	Watts	kcal/hr	btu/hr
4.5	0.4	0.2	4.5	4	15

Standby mode (fast wake up)					
AC Mains Power Draw (Watts)	Current Draw (Amps)		Thermal Dissipation		
	120Vac	230Vac	Watts	kcal/hr	btu/hr
60	1.0	0.5	60	52	205

Running with no audio signal					
AC Mains Power Draw (Watts)	Current Draw (Amps)		Thermal Dissipation		
	120Vac	230Vac	Watts	kcal/hr	btu/hr
204	3	1.55	204	175	696

Running (all channels driven)								
Load Mode	Load (Ohms)	Signal duty & Crest Factor	Input power (Watts)	Input Current (Amps)		Thermal Dissipation		
				120Vac	230Vac	Watts	kcal/hr	btu/hr
2 Ohm	2	1/8, cf = 4.0 (12dB)	1703	20.4	10.6	453	390	1547
2 Ohm	4	1/4, cf = 2.8 (9dB)	1652	19.8	10.3	402	345	1371
2 Ohm	4	1/8, cf = 4.0 (12dB)	938	11.9	6.2	313	269	1069
4 Ohm	4	1/4, cf = 2.8 (9dB)	2967	31.6	16.5	467	401	1592
4 Ohm	4	1/8, cf = 4.0 (12dB)	1617	20	10.4	367	315	1251
4 Ohm	8	1/4, cf = 2.8 (9dB)	1605	19.2	10.0	355	305	1211
4 Ohm	8	1/8, cf = 4.0 (12dB)	920	16.6	6.1	295	254	1007
8 Ohm	8	1/4, cf = 2.8 (9dB)	2825	33.1	17.3	325	279	1109
8 Ohm	8	1/8, cf = 4.0 (12dB)	1567	18.48	9.6	317	272	1081

## Notes

- The amplifier was configured to have no audio processing
- Measurements were performed with a Hameg HM8115-2 power analyser
- All measurements were done at 230Vac, 50Hz.
- The Current Draw figures for 120Vac are calculated

# Model T06-48

Sleep mode (slow wake up)					
AC Mains Power Draw (Watts)	Current Draw (Amps)		Thermal Dissipation		
	120Vac	230Vac	Watts	kcal/hr	btu/hr
4.5	0.4	0.2	4.5	4	15

Standby mode (fast wake up)					
AC Mains Power Draw (Watts)	Current Draw (Amps)		Thermal Dissipation		
	120Vac	230Vac	Watts	kcal/hr	btu/hr
60	1.0	0.5	60	52	205

Running with no audio signal					
AC Mains Power Draw (Watts)	Current Draw (Amps)		Thermal Dissipation		
	120Vac	230Vac	Watts	kcal/hr	btu/hr
204	3	1.55	204	175	696

Running (all channels driven)								
Load Mode	Load (Ohms)	Signal duty & Crest Factor	Input power (Watts)	Input Current (Amps)		Thermal Dissipation		
				120Vac	230Vac	Watts	kcal/hr	btu/hr
2 Ohm	2	1/8, cf = 4.0 (12dB)	1032	13.0	6.8	282	243	963
2 Ohm	4	1/4, cf = 2.8 (9dB)	1000	12.6	6.6	251	216	856
2 Ohm	4	1/8, cf = 4.0 (12dB)	569	7.9	4.1	194	166	661
4 Ohm	4	1/4, cf = 2.8 (9dB)	1798	21.3	11.1	298	256	1016
4 Ohm	4	1/8, cf = 4.0 (12dB)	980	11.6	6.1	230	198	784
4 Ohm	8	1/4, cf = 2.8 (9dB)	973	11.6	6.1	223	191	760
4 Ohm	8	1/8, cf = 4.0 (12dB)	558	7.4	3.8	183	157	623
8 Ohm	8	1/4, cf = 2.8 (9dB)	1712	19.4	10.1	212	182	723
8 Ohm	8	1/8, cf = 4.0 (12dB)	949	11.6	6.1	199	171	680

## Notes

- The amplifier was configured to have no audio processing
- Measurements were performed with a Hameg HM8115-2 power analyser
- All measurements were done at 230Vac, 50Hz.
- The Current Draw figures for 120Vac are calculated

# Model T03-48

Sleep mode (slow wake up)					
AC Mains Power Draw (Watts)	Current Draw (Amps)		Thermal Dissipation		
	120Vac	230Vac	Watts	kcal/hr	btu/hr
4.5	0.4	0.2	4.5	4	15

Standby mode (fast wake up)					
AC Mains Power Draw (Watts)	Current Draw (Amps)		Thermal Dissipation		
	120Vac	230Vac	Watts	kcal/hr	btu/hr
60	1.0	0.5	60	52	205

Running with no audio signal					
AC Mains Power Draw (Watts)	Current Draw (Amps)		Thermal Dissipation		
	120Vac	230Vac	Watts	kcal/hr	btu/hr
204	3	1.55	204	175	696

Running (all channels driven)								
Load Mode	Load (Ohms)	Signal duty & Crest Factor	Input power (Watts)	Input Current (Amps)		Thermal Dissipation		
				120Vac	230Vac	Watts	kcal/hr	btu/hr
2 Ohm	2	1/8, cf = 4.0 (12dB)	511	6.7	3.35	136	117	464
2 Ohm	4	1/4, cf = 2.8 (9dB)	495	6.5	3.25	120	104	411
2 Ohm	4	1/8, cf = 4.0 (12dB)	281	4.1	2.05	94	811	321
4 Ohm	4	1/4, cf = 2.8 (9dB)	890	11.0	5.5	140	120	478
4 Ohm	4	1/8, cf = 4.0 (12dB)	485	6.0	3.0	110	95	375
4 Ohm	8	1/4, cf = 2.8 (9dB)	481	6.0	3.0	107	92	364
4 Ohm	8	1/8, cf = 4.0 (12dB)	276	3.8	1.9	89	76	302
8 Ohm	8	1/4, cf = 2.8 (9dB)	847	10	5.0	98	84	333
8 Ohm	8	1/8, cf = 4.0 (12dB)	470	6.0	3.0	95	82	324

## Notes

- The amplifier was configured to have no audio processing
- Measurements were performed with a Hameg HM8115-2 power analyser
- All measurements were done at 230Vac, 50Hz.
- The Current Draw figures for 120Vac are calculated