

Cloud Electronics Ltd. - Power Consumption Heat Loss

TN-011 V2.3

Product	Standby				Quiescent				1/8th Power (W) Pink noise					1/3rd Power (W) Pink noise				
Note: Mains voltage 230 VAC 50 Hz (±1%) unless otherwise stated.	Measurement taken when the product has entered a standby state.				Measurement taken when no audio is being delivered to the load and the product has not entered a standby state.				Constant sound level at 1/8th the rated output power (W). Simulates use where audio is clean with only occasional clipping.					Constant sound level at 1/3rd the rated output power (W). Simulates use where audio begins to become compressed, limited or heavily clipped.				
	Power		Heat Loss		Power		Heat Loss		Power			Heat Loss		Power			Heat Loss	
	Watts	VA	KJ/Hour	BTU/Hour	Watts	VA	KJ/Hour	BTU/Hour	Watts	VA	Efficiency	KJ/Hour	BTU/Hour	Watts	VA	Efficiency	KJ/Hour	BTU/Hour
24 SERIES																		
24-120 into 2x 4Ω loads (Low-Z)	5.74	15.5	20.7	19.6	17.1	28.5	61.6	58.4	56.5	65.9	49.5%	102.7	97.4	106.2	114.9	64.2%	137.0	129.9
24-120 into 2x 100V loads (High-Z)	5.74	15.5	20.7	19.6	17.1	28.5	61.6	58.4	54.0	63.6	56.8%	83.9	79.5	100.8	109.1	76.0%	87.2	82.7
24-240 into 2x 4Ω load (Low-Z)	5.88	24.9	21.2	20.1	18.7	36.1	67.5	64.0	90.8	109.0	62.0%	124.2	117.7	184.0	207.2	72.8%	179.8	170.5
24-240 into 2x 100V loads (High-Z)	5.88	24.9	21.2	20.1	18.7	36.1	67.5	64.0	88.9	107.4	67.0%	105.5	100.1	177.4	197.8	80.7%	123.3	117.0
46-80																		
46-80 into 4x 4Ω loads (Low-Z)	8.54	27.5	30.7	29.2	20.1	38.2	72.4	68.6	64.9	85.3	56.0%	102.8	97.5	126.0	143.5	71.5%	129.5	122.8
46-80T into 4x 125Ω loads (High-Z)	8.56	27.3	30.8	29.2	20.3	38.6	73.1	69.3	91.1	109.7	42.9%	187.3	177.6	175.6	198.4	54.5%	287.6	272.7
46 SERIES																		
46-120mk2 into 4x 4Ω loads (Low-Z)	9.35	29.1	33.7	31.9	31.1	52.3	111.8	106.0	105.7	124.6	53.6%	176.6	167.5	169.7	185.1	64.1%	219.2	207.9
46-120mk2 into 4x 100V loads (High-Z)	9.35	29.3	33.7	31.9	30.9	52.4	111.3	105.6	105.2	123.5	64.9%	132.8	125.9	166.5	181.0	79.3%	124.3	117.9
46-240 into 4x 4Ω loads (Low-Z)	9.70	51.6	34.9	33.1	35.2	72.6	126.7	120.2	188.0	226.4	64.1%	243.1	230.5	309.9	350.2	68.8%	348.1	330.1
46-240 into 4x 100V loads (High-Z)	9.92	52.5	35.7	33.9	35.4	73.3	127.4	120.8	178.0	215.8	70.3%	190.2	180.3	301.2	338.8	81.4%	201.6	191.1
CA SERIES																		
CA2250 into 2x 40Ω loads	0.80	12.4	2.86	2.72	17.1	28.1	61.5	58.3	88.8	107.3	71.2%	92.1	87.4	180.3	197.0	84.36%	101.5	96.3
CA2500 into 2x 20Ω loads	1.92	24.3	6.91	6.55	24.3	43.6	87.6	83.1	164.0	200.4	81.8%	107.5	102.0	358.9	397.9	84.73%	197.3	187.1
CA4250 into 4x 40Ω loads	1.93	23.8	6.93	6.57	33.7	53.9	121.4	115.1	173.1	209.3	73.5%	164.9	156.4	365.1	398.1	83.93%	211.2	200.3
CA6160 into 4x 63Ω loads	2.28	23.5	8.22	7.80	43.5	66.5	156.4	148.3	177.5	214.1	70.7%	187.2	177.5	305.6	337.7	81.28%	205.9	195.3
CA8125 into 8x 80Ω loads	2.35	23.8	8.47	8.03	53.8	78.8	193.7	183.7	186.1	223.4	68.1%	214.0	203.0	378.9	407.9	82.01%	245.4	232.7
CV SERIES																		
CV2500 into 2x 10Ω loads	2.34	23.4	8.41	7.98	27.1	46.7	97.6	92.5	164.2	201.3	69.7%	179.0	169.7	380.7	421.1	78.6%	293.9	278.7
CV4250 into 4x 40Ω loads	2.43	24.0	8.74	8.29	38.9	60.0	140.1	132.9	187.4	227.2	67.7%	217.9	206.7	330.1	368.8	77.8%	263.5	249.9
CV8125 into 8x 80Ω loads	2.54	24.4	9.14	8.67	59.7	89.3	215.0	203.9	207.0	248.8	62.6%	278.7	264.3	352.6	387.5	73.7%	334.4	317.1
MA40 SERIES																		
MA40 into 1x 4Ω load	0.90	4.84	3.24	3.08	3.87	10.5	13.9	13.2	9.83	21.5	48.7%	18.1	17.2	19.0	35.6	63.7%	24.9	23.6
MA40F into 1x 4Ω load	0.78	4.68	2.79	2.65	3.99	10.7	14.4	13.6	9.64	21.0	48.4%	17.9	17.0	18.8	36.1	62.8%	25.2	23.9
MA40T into 1x 4Ω load	0.80	4.68	2.86	2.72	4.49	11.6	16.2	15.3	11.0	23.5	41.7%	23.2	22.0	19.6	36.3	51.9%	34.0	32.3
MA40E into 1x 4Ω load	2.45	7.65	8.82	8.36	4.60	11.8	16.6	15.7	10.6	22.2	45.1%	20.9	19.8	15.5	30.0	54.3%	25.4	24.1
MA80 SERIES																		
MA80 into 1x 4Ω load	0.88	7.13	3.16	2.99	5.40	13.6	19.4	18.4	17.4	32.4	54.8%	28.4	26.9	27.8	47.2	64.1%	36.0	34.1
MA80E into 1x 4Ω load	2.88	9.70	10.38	9.84	5.05	12.9	18.2	17.2	17.6	31.8	56.2%	27.7	26.3	26.3	44.7	64.8%	33.3	31.6
MA80FT into 1x 4Ω load (Low-Z)	0.94	7.52	3.38	3.21	6.10	14.8	22.0	20.8	16.2	30.6	51.0%	28.6	27.1	32.9	54.6	64.8%	41.6	39.5
MA80FT into 1x 125Ω load (High-Z)	0.94	7.52	3.38	3.21	6.10	14.8	22.0	20.8	17.9	33.4	49.7%	32.3	30.7	36.4	60.0	59.5%	53.1	50.4
MPA MK2 SERIES																		
MPA120 into 1x 4Ω load (Low-Z)	0.89	11.8	3.22	3.05	9.60	18.9	34.5	32.8	29.9	40.6	50.6%	53.2	50.5	59.0	67.1	68.2%	67.5	64.0
MPA240 into 1x 4Ω load (Low-Z)	0.89	11.8	3.22	3.05	9.60	18.9	34.5	32.8	48.0	56.7	62.8%	64.3	60.9	104.6	112.5	76.7%	87.7	83.2

Note: Amplifier heat loss calculations do not include any power losses dissipated in the loads (speakers).