



## SPA-Qf 60x2 AC Current Draw and Thermal Dissipation

Output Level	Load (ohms, bridged)	100 V AC Mains			120 V AC Mains			230 V AC Mains		Thermal Dissipation		
		AC Current	Power Factor	Losses (Watts)	AC Current	Power Factor	Losses (Watts)	AC Current	Power Factor	Losses (Watts)	BTU/h	kcal/h
Idle		0.32	0.59	19	0.27	0.59	19	0.21	0.39	19	65	16
Mute		0.32	0.59	19	0.27	0.59	19	0.21	0.39	19	65	16
Standby/Power Save		0.20	0.49	10	0.19	0.44	10	0.17	0.28	11	34	9
1/8 rated power (pink noise)	2 Ω per Ch	0.52	0.86	30	0.45	0.83	30	0.35	0.55	30	103	26
	4 Ω per Ch	0.47	0.83	24	0.41	0.80	24	0.33	0.52	24	83	21
	8 Ω per Ch	0.46	0.83	24	0.40	0.80	24	0.32	0.52	23	81	21
	16 Ω per Ch	0.46	0.83	23	0.40	0.79	23	0.32	0.51	23	79	20
	40 Ω per Ch (70V)	0.45	0.83	22	0.39	0.79	22	0.38	0.43	22	76	19
	80 Ω per Ch (100V)	0.45	0.83	22	0.39	0.79	22	0.32	0.50	22	76	19
1/3 rated power (1 kHz)	2 Ω per Ch	0.87	0.95	42	0.73	0.93	41	0.52	0.68	42	142	36
	4 Ω per Ch	0.82	0.94	36	0.68	0.93	36	0.49	0.65	35	123	31
	8 Ω per Ch	0.79	0.93	34	0.66	0.93	33	0.47	0.67	32	113	29
	16 Ω per Ch	0.75	0.92	29	0.62	0.92	28	0.45	0.66	28	96	24
	40 Ω per Ch (70V)	0.72	0.92	26	0.60	0.91	26	0.44	0.64	25	88	22
	80 Ω per Ch (100V)	0.71	0.92	25	0.60	0.91	25	0.44	0.63	24	85	21

Note: 1/8 rated power is measured with pink noise is representative of typical playback of dynamic content with crest factor. 1/3 Rated power is measured with a 1kHz sine wave. This is representative of worse case scenario of what the device draw and dissipate. Measurements are conducted with all channels driven with each channel driving the same load.



## SPA-Qf 60x4 AC Current Draw and Thermal Dissipation

Output Level	Load (ohms, bridged)	100 V AC Mains			120 V AC Mains			230 V AC Mains		Thermal Dissipation		
		AC Current	Power Factor	Losses (Watts)	AC Current	Power Factor	Losses (Watts)	AC Current	Power Factor	Losses (Watts)	BTU/h	kcal/h
Idle		0.37	0.63	23	0.33	0.60	23	0.24	0.44	24	79	20
Mute		0.37	0.63	23	0.33	0.59	23	0.24	0.44	24	79	20
Standby/Power Save		0.20	0.47	9	0.17	0.45	9	0.16	0.29	10	31	8
1/8 rated power (pink noise)	2 Ω per Ch	0.69	0.89	32	0.60	0.87	32	0.45	0.60	32	109	27
	4 Ω per Ch	0.67	0.90	30	0.57	0.87	30	0.44	0.59	30	102	26
	8 Ω per Ch	0.65	0.90	28	0.56	0.87	28	0.41	0.60	28	97	24
	16 Ω per Ch	0.65	0.89	28	0.56	0.87	28	0.42	0.60	27	96	24
	40 Ω per Ch (70V)	0.66	0.90	29	0.56	0.87	29	0.42	0.61	28	97	25
	80 Ω per Ch (100V)	0.65	0.90	29	0.55	0.87	27	0.41	0.61	28	94	24
1/3 rated power (1 kHz)	2 Ω per Ch	1.50	0.95	62	1.20	0.97	59	0.72	0.83	57	203	51
	4 Ω per Ch	1.46	0.96	60	1.17	0.96	55	0.68	0.83	51	186	47
	8 Ω per Ch	1.39	0.96	54	1.13	0.96	50	0.65	0.83	44	171	43
	16 Ω per Ch	1.29	0.97	44	1.07	0.95	41	0.65	0.80	39	141	36
	40 Ω per Ch (70V)	1.21	0.97	37	1.00	0.95	35	0.60	0.82	33	120	30
	80 Ω per Ch (100V)	1.19	0.97	36	1.00	0.95	34	0.59	0.82	32	116	29

Note: 1/8 rated power is measured with pink noise is representative of typical playback of dynamic content with crest factor. 1/3 Rated power is measured with a 1kHz sine wave. This is representative of worse case scenario of what the device draw and dissipate. Measurements are conducted with all channels driven with each channel driving the same load.