

*Heavy-Duty Operation*

The HTA line of amplifiers are designed to be workhorses. Large heat sinks and huge transformers allow these amplifiers to supply continuous, full (RMS) power to loads, even at high ambient temperatures. The HTA amplifiers are convection-cooled, so they provide the ultimate in set-and-forget operation.

More amazing than the heavy-duty capability of the HTA amplifiers is the quality of the output. The frequency response will remain within +/- 1 dB and have less than 0.5% distortion over the entire audio range (20 Hz - 20 kHz). What is so special about this? The output is transformer-coupled. Few transformer-isolated amplifiers can even come close to these specifications. An enormous output transformer using proprietary coil winding techniques is what allows the HTA to reach this level of performance.

A Power MOSFET output stage completes the extremely reliable and durable performance of these amplifiers. This type of transistor does not suffer from many of the failure modes of the more typical transistors (bi-polar types). The result is an amplifier that can operate reliably at full power and supply transformer-isolated, high-quality, full bandwidth (20 Hz - 20 kHz) audio.

# MONO-CHANNEL POWER AMPLIFIERS



## HTA125A, HTA250A

The HTA Series high-performance power amplifiers can safely drive loads continuously at full (RMS) power. Overload protection includes an electronic shutdown circuit and a thermal breaker.

*Product Features:*

- 125- and 250-watt models
- Convection-cooled
- Power MOSFET output circuitry
- Thermal protection and automatic electronic overload protection
- Hi-Z unbalanced and Lo-Z balanced or unbalanced input w/accessory transformer (TL600)
- Internal Low Cut filter switch
- 90 dB signal-to-noise
- 4- and 8-ohm, 25V, 25VCT and 70V outputs
- Input sensitivity: Hi-Z, 500 mV; Lo-Z, 150 mV (HTA125A), 150 mV (HTA250A)
- Power Consumption: 260W (HTA125A); 520W (HTA250A)
- Line bridging (driving multiple amplifiers) is possible w/ an accessory transformer (TL100)
- 19" rack-mount design (3 rack spaces)
- Listed to UL Standard 60065 for US and Canada

Technical Specifications, Dimensions, and Weights can be found on Page 79

Accessories



**WMT1A**  
Matching Transformer



**TL100**  
1:1 Bridging Transformer



**TL600**  
600-ohm Impedance-Matching Transformer

# MONO-CHANNEL POWER AMPLIFIER



## BPA60

The BPA60 supplies 60 watts of power amplification for professional and commercial sound systems requiring continuous high-quality sound.

*Product Features:*

- 60 watts
- 1 input: Hi-Z unbalanced
- Lo-Z balanced input with accessory transformer
- Input level control and Low Cut filter switch
- 8-ohm/25V, 16-ohm, 25VCT, and 70V outputs
- Sensitivity: 300mV, Hi-Z; 75mV, Lo-Z
- Resettable circuit breaker and thermal protection
- Operates with 25V and 70V systems
- 120V AC, 60 Hz, 180W @ full rated output
- Rack-mountable with accessory mounting kit: RPK53 (2 rack spaces)
- Listed to UL Standard 60065 for US and Canada

Technical Specifications, Dimensions, and Weights can be found on Page 79

Accessories



**RPK53**  
Rack Panel Kit



**TL100**  
1:1 Bridging Transformer



**TL600**  
600-ohm Impedance-Matching Transformer

# AMPLIFIER FEATURES CHART

Amplifier Output Power Rating/Channel	Model Numbers	Amp Channels	Input Types						Signal Processing						Music Muting				Night Ringer	Remote Volume	Output Meter	Mounting			Page Number									
			TEL Input* 600-ohm Balanced	MC Input* Lo-Z Balanced	AUX Input* Hi-Z Unbalanced	Balanced Inputs Hi-Z	Modular Inputs	Audio Enhancement	Loudness Contour	ALC	EQ	Bass/Treble	Tone Control	Variable Mute	Auto Mute	Manual Mute	Wall Mount	Shelf Mount				Rack Mount												
1.5W	GA2	1			1																												42	
5W	GAG	1			1																												42	
10W	C10	1	1	2 (1)	0 (1)																												42	
15W	TPU15A	1	1		1																												43	
20W	C20	1	1	2 (1)	0 (1)																												42	
35W	C35	1	1	2 (1)	1 (2)																												42	
35W	GS35	1	0 (1)	6 (4)	1 (2)																												41	
35W	TPU35B	1	1	1	1																												43	
35W	V35	1	1	1	1	8																											38	
60W	BPA60	1																																46
60W	C60	1	1	2 (1)	1 (2)																													42
60W	GS60	1	0 (1)	6 (4)	1 (2)																													41
60W	TPU60B	1	1	1	1																													43
60W	V60	1	1	1	1	8																												38
100W	C100	1	1	2 (1)	1 (2)																													42
100W	GS100	1	0 (1)	6 (4)	1 (2)																													41
100W/60W/20W	PM3180	3	0 (1)	2 (1)	4																													47
100W	TPU100B	1	1	1	1																													43
100W	V100	1	1	1	1	8																												38
100W	WV100	1	1	1	1	8																												40
125W	HTA125A	1	1	1	1																													46
150W	GS150	1	0 (1)	6 (4)	1 (2)																													41
150W	V150	1	1	1	1	8																												38
150W	WV150	1	1	1	1	8																												40
250W	GS250	1	0 (1)	6 (4)	1 (2)																													41
250W	HTA250A	1	1	1	1																													46
250W	TPU250	1	1	1	1																													43
250W	V250	1	1	1	1	8																												38
250W	WV250	1	1	1	1	8																												40
300/600W	M300	2/1	1	1	1	2																												45
300W	X300	2																																44
450/900W	M450	2/1	1	1	1	2																												45
450W	X450	2																																44
600/1200W	M600	2/1	1	1	1	2																												45
600W	X600	2																																44

- Feature Included
  - Features determined by type of module installed
  - Balanced input available with accessory plug-in transformer (TL100 or TL600)
  - Accessory kit required for mounting
  - Contact closure activation only
- \* Some inputs are switch selectable. The number in parentheses shows the maximum number of inputs when switched.
- † BALSZ balanced input module included standard; uses one modular input bay.

Specifications subject to change without notice.

# AMPLIFIER SPECS CHART

Model Numbers	Output Power Rating/Channel	Channels	Frequency Response*	Distortion**	Speaker Outputs	AC Line Draw***	Dimensions	Product Weight
BP460	60W	1	20 Hz to 20 kHz	2% Max	8-ohm/25V, 16-ohm, 25VCT, 70V	180W	15-1/4" W x 3-1/2" H x 8-1/4" D	17 lb.
C10	10W	1	70 Hz to 16 kHz	1% Max	70V, 25V, 16-ohm, 8-ohm, 4-ohm	38W	11-3/8" W x 2-7/8" H x 7-3/8" D	5 lb.
C20	20W	1	70 Hz to 16 kHz	1% Max	70V, 25V, 16-ohm, 8-ohm, 4-ohm	50W	11-3/8" W x 2-7/8" H x 7-3/8" D	6 lb.
C35	35W	1	70 Hz to 16 kHz - Transformer; 20 Hz to 20 kHz - Direct	1% Max	70V, 25V, 16-ohm, 4-ohm direct	85W	14-1/2" W x 3-3/4" H x 11" D	15 lb.
C60	60W	1	70 Hz to 16 kHz - Transformer; 20 Hz to 20 kHz - Direct	1% Max	8-ohm on C35 and C60	148W	14-1/2" W x 3-3/4" H x 11" D	17 lb.
C100	100W	1	200 Hz to 15 kHz	2% Max	8- & 600-ohm	220W	5-1/2" W x 4-1/8" H x 2-1/4" D	19 lb.
GA2	1.5W	1	30 Hz to 12 kHz	2% Max	70V, 25V, 8-ohm	4W	8-1/2" W x 2-3/4" H x 6" D	2 lb.
GA6A	6W	1	30 Hz to 12 kHz	2% Max	70V, 25V, 8-ohm	16W	8-1/2" W x 2-3/4" H x 6" D	5 lb.
GS35	35W	1	65 Hz to 20 kHz - Transformer; 20 Hz to 20 kHz - Direct	0.5% Max	70V, 25V, 25VCT, 8-ohm, 4-ohm direct	0.9A	16-1/2" W x 3-1/2" H x 13-1/2" D	17 lb.
GS60	60W	1	65 Hz to 20 kHz - Transformer; 20 Hz to 20 kHz - Direct	0.5% Max	70V, 25V, 25VCT, 8-ohm, 4-ohm direct	1.3A	16-1/2" W x 3-1/2" H x 13-1/2" D	20 lb.
GS100	100W	1	65 Hz to 20 kHz - Transformer; 20 Hz to 20 kHz - Direct	0.5% Max	70V, 25V, 25VCT, 8-ohm, 4-ohm direct	2.2A	16-1/2" W x 3-1/2" H x 13-1/2" D	23 lb.
GS150	150W	1	65 Hz to 20 kHz - Transformer; 20 Hz to 20 kHz - Direct	0.5% Max	70V, 25V, 25VCT, 8-ohm, 4-ohm direct	3.0A	16-1/2" W x 3-1/2" H x 13-1/2" D	29 lb.
GS250	250W	1	65 Hz to 20 kHz - Transformer; 20 Hz to 20 kHz - Direct	0.5% Max	70V, 25V, 25VCT, 8-ohm, 4-ohm direct	5.0A	16-1/2" W x 3-1/2" H x 13-1/2" D	30 lb.
HTA125A	125W	1	20 Hz to 20 kHz	0.5% Max	70V, 25VCT, 25V, 8-ohm, 4-ohm	260W	19" W x 5-1/4" H x 11" D	36 lb.
HTA250A	250W	1	20 Hz to 20 kHz	0.5% Max	70V, 25VCT, 25V, 8-ohm, 4-ohm	520W	19" W x 5-1/4" H x 11" D	50 lb.
M300	300/600W	2 or 1	20 Hz to 20 kHz	0.5% Max	4- to 8-ohm (2 channel mode); 70V (1 channel mode)	12A	17" W x 3-1/2" H x 18-1/2" D (not including brackets)	41 lb.
M450	450/900W	2 or 1	20 Hz to 20 kHz	0.5% Max	4- to 8-ohm (2 channel mode); 70V (1 channel mode)	15A	17" W x 3-1/2" H x 18-1/2" D (not including brackets)	44 lb.
M600	600/1200W	2 or 1	20 Hz to 20 kHz	0.5% Max	4- to 8-ohm (2 channel mode); 70V (1 channel mode)	20A	17" W x 3-1/2" H x 18-1/2" D (not including brackets)	46 lb.
PMS180	100W 60W 20W	3	70 Hz to 20 kHz - Trans (Amp 1 & 2); 70 Hz to 15 kHz - Trans (Amp 3); 20 Hz to 20 kHz - Direct (Amp 1 & 2); 20 Hz to 15 kHz - Direct (Amp 3)	0.5% - Amp 1 & 2; 1% - Amp 3 (Max)	70V, 25V, 8-ohm, 4-ohm direct	430W	17" W x 5-1/2" H x 12-1/2" D	38 lb.
TPU15A	15W	1	70 Hz to 12 kHz	2% Max	70V, 25V, 8-ohm	0.5A	11" W x 2-3/4" H x 2-3/8" D	4 lb.
TPU35B	35W	1	70 Hz to 12 kHz	2% Max	70V, 25V, 8-ohm	0.75A	11" W x 2-3/4" H x 2-3/8" D	12 lb.
TPU60B	60W	1	70 Hz to 15 kHz	1% Max	70V, 25V, 25VCT, 16-ohm	1.5A	14-1/4" W x 8-3/8" H x 3-5/8" D	15 lb.
TPU100B	100W	1	70 Hz to 15 kHz	1% Max	70V, 25V, 25VCT, 16-ohm	2A	14-1/4" W x 8-3/8" H x 3-5/8" D	18 lb.
TPU250	250W	1	70 Hz to 15 kHz	1% Max	70V, 25V	5A	19" W x 10-1/2" H x 3-7/8" D	28 lb.
V35	35W	1	45 Hz to 20 kHz - Transformer; 20 Hz to 20 kHz - Direct	0.5% - Transformer; 0.1% - Direct (Max)	70V, 25V, 8-ohm, 4-ohm direct	0.6A	17" W x 3-1/2" H x 14-3/4" D	22 lb.
V60	60W	1	45 Hz to 20 kHz - Transformer; 20 Hz to 20 kHz - Direct	0.5% - Transformer; 0.1% - Direct (Max)	70V, 25V, 8-ohm, 4-ohm direct	1.3A	17" W x 3-1/2" H x 14-3/4" D	26 lb.
V100	100W	1	45 Hz to 20 kHz - Transformer; 20 Hz to 20 kHz - Direct	0.5% - Transformer; 0.1% - Direct (Max)	70V, 25V, 8-ohm, 4-ohm direct	2.0A	17" W x 3-1/2" H x 14-3/4" D	28 lb.
V150	150W	1	45 Hz to 20 kHz - Transformer; 20 Hz to 20 kHz - Direct	0.5% - Transformer; 0.1% - Direct (Max)	70V, 25V, 8-ohm, 4-ohm direct	3.5A	17" W x 3-1/2" H x 14-3/4" D	31 lb.
V250	250W	1	45 Hz to 20 kHz - Transformer; 20 Hz to 20 kHz - Direct	0.5% - Transformer; 0.1% - Direct (Max)	70V, 25V, 8-ohm, 4-ohm direct	5.5A	17" W x 3-1/2" H x 14-3/4" D	32 lb.
WV100	100W	1	20 Hz to 20 kHz	0.5% Max	70V direct	2.0A	14-1/8" W x 21" H	27 lb.
WV150	150W	1	20 Hz to 20 kHz	0.5% Max	70V direct	3.5A	14-1/8" W x 21" H	29 lb.
WV250	250W	1	20 Hz to 20 kHz	0.5% Max	70V direct	5.5A	14-1/8" W x 21" H	28 lb.
X300	300W	2	20 Hz to 20 kHz	0.5% Max	70V direct	12A	17" W x 3-1/2" H x 18-1/4" D (not including brackets)	41 lb.
X450	450W	2	20 Hz to 20 kHz	0.5% Max	70V direct	15A	17" W x 3-1/2" H x 18-1/4" D (not including brackets)	44 lb.
X600	600W	2	20 Hz to 20 kHz	0.5% Max	70V direct	20A	17" W x 3-1/2" H x 18-1/4" D (not including brackets)	46 lb.

\* @ -20dB FRP Transformer output;  
@ FRP for Direct outputs

\*\* Bandwidth limited to frequency response

\*\*\* FRP @ 120V AC line voltage

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