

**PA300 Series** of mini amplifiers are available to power small number of localized speakers. 3 variants are available for different applications, with 4 Ohm speaker connectivity as well as 100V line output for high impedance speakers. Their compact size enabled them to be stored in small enclosed areas such as cabinets, pole boxes, etc.

### PA320 20W 4 Ohm Mini Amplifier

Used to amplify BGM to a speakers of 4 or 8 Ohm, from TV output to a bathroom speaker in hotel room. Amperes VC7810 volume controller and VP7810 BGM Speaker patch panel can be installed for emergency overriding by central PA system.

- Adjustable **volume** control
- **Compact** size of 20W 4 Ohm rating



**VC7001**  
Volume Controller  
for PA322

### PA322 20W 4 Ohm Mini Amplifier with Dual Source

It is powered by Class D amplifier with built in PA overriding module which allows central PA to override local source for emergency broadcast. Two audio source can be connected to PA322, which is selectable via VC7001 volume controller with source selector button and smooth volume adjustment.

- **Class D** amplifier with 20W 4 Ohm rating
- **Dual input source**, selectable via external volume controller (VC7001)
- Easy connection to **VC7001** for source selection and volume adjustment

### PA330 30W 100V Mini Amplifier

It is suitable to be used as remote amplifier in decentralized system such as classroom paging, horn amplifier for security poles or to drive a group of localized high impedance speakers. To use as relay amplifiers along 100V line trunk, a down converter such as PR7400 can be installed with its output fed to PA330 to drive some 100V speakers.

- Adjustable **volume** control
- **Compact size** of 30W 100V output



## Technical Specifications

	PA320	PA322	PA330
Ratings	20W 4 Ohm		30W 100V
Operating voltage	220 - 240V AC		
Current consumption (240V AC)	0.14A	0.03A	0.24A
Inputs	1	2	1
Input audio	Mono, unbalanced		
Input signal (sensitivity)	800 mV		
Input gain controls	-40 to +4 dBu		
Input impedance	10 k Ohm		
Outputs impedance	4 Ohm	4 Ohm	330 Ohm
Controls	Volume	Volume & source select	Volume
External link (optional)	VC7810, VP7810	VC7001	VC7030
Frequency response	100 - 18 KHz	20 - 20 KHz	100 - 20 KHz
S/N ratio	>65 dB		
Operating temperature	-10° to 60°C		
Operating humidity	80%		
Dimensions (W x H x D)	130 x 55 x 95 mm	140 x 55 x 95 mm	150 x 71 x 155 mm
Weight	0.76 kg	0.82 kg	1.10 kg

## Packing Information

### PA320 / 322 :

Carton size : 555 (L) x 295 (W) x 165 (H) mm  
Gross weight : 16.20 kg  
20 units per carton

### PA330 :

Carton size : 550 (L) x 465 (W) x 180 (H) mm  
Gross weight : 16.55 kg  
12 units per carton



# PA2120 PA2240 PA2360 PA2480 PA2600

## PA2000 Series

## POWER AMPLIFIERS



### PA2120

120W 100V

### PA2240

240W 100V

### PA2360

360W 100V

### PA2480

480W 100V

### PA2600

600W 100V

**PA2000 series** of power amplifiers has been a workhorse of powering the PA setups for decades. They are available in various power ratings to choose from to suit the loading requirement. With our continuous product improvement effort, we had improved the performance and reliability in line with ever changing needs of the industry.

- In rush current **limiter**
- Momentary short circuit **protection**
- Temperature dependent **dual speed** cooling fan
- **4 Ohm** speaker connection available with 25V - 48V output
- **AC** and **DC** operation for uninterrupted operation during power failure
- **Thermal protection** by muting input signal (typically 75 deg at heat sink)
- **Balanced input signal** with gain control and selectable grounding option

## Technical Specifications

	PA2120	PA2240	PA2360	PA2480	PA2600
Ratings (rms) 100V output	120W	240W	360W	480W	600W
Operating voltage	220 - 240V AC or 24V DC back up supply				
Power consumption (240V AC)	255 VA (0.1A)	497 VA (1.9A)	731 VA (2.8A)	996 VA (3.8A)	1069 VA (4.1A)
Current consumption (24V DC)	6.1A	10.6A	16.3A	22.3A	23.1A
Standby current (24V DC)	0.2A		0.3A	0.4A	
Input signal (sensitivity)	1V (+4 dBU) / 10 k Ohm via Phoenix connectors				
Input gain controls	-40 to +40 dBu				
Outputs	70 / 100V line and 4 Ohm				
4 Ohm output voltage	22 V	31 V	38 V	43.8 V	48 V
Output impedance (max load)	83 Ohm	42 Ohm	27 Ohm	20 Ohm	16.6 Ohm
Frequency response	70 - 15 KHz @ 1 KHz +/- 3dB				
S/N ratio	>70 dB @ 1 KHz, 1V				
THD + N	< 1 %				
Protections	Thermal, short circuit, overload, fuse, in-rush current				
Cut off temperature	75°C				
Cooling system	Auto temperature controlled cooling fan				
Indicators	LED: Power, Signals				
Dimensions (W x H x D)	482 x 88 x 335 mm				
Net weight	11.40 kg	12.35 kg	16.20 kg	17.95 kg	19.60 kg

## Packing Information

Carton size : 550 (L) x 465 (W) x 180 (H) mm

Gross weight : PA2120 - 13.10 kg  
: PA2240 - 13.85 kg  
: PA2360 - 17.40 kg  
: PA2480 - 19.65 kg  
: PA2600 - 21.30 kg

1 unit per carton

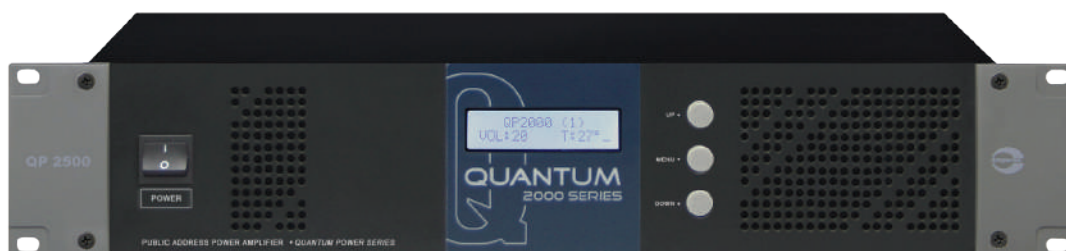


QP2125 125W 100V

QP2250 250W 100V

QP2375 375W 100V

QP2500 500W 100V



**QP2000 series** is available with power ratings from 125W to 500W 100V, enhanced with various controls and protections for reliable performance. It is digitally controlled, enabling it to be monitored and controlled remotely via PMX software.

One distinct feature apart from others are the Auto Fault Sensor (AFS) circuitry with built in standby changeover relay. It saves the need of external changeover device for continuous operation of the system.

- In rush **current limiter**
- RS485 data port for **remote monitoring**
- **Fan speed** option ensures longer lifespan if the unit
- Overload, thermal cut of, short circuit and fuse **protections**
- **AC** and **DC** operation for uninterrupted operation during power failure
- Available in **125 / 250 / 375 / 500W** 100V line output in compact 2 HU height
- Built in **Auto Fault Sensor** and **Changeover** relay for standby fault changeover
- Digital setting for various **control** features such as bass, treble, fan speed, etc.

## Technical Specifications

	QP2125	QP2250	QP2375	QP2500
Ratings (rms) 100V output	125W	250W	375W	500W
Operating voltage	220 - 240V AC or 24V DC back up supply			
Power consumption (240V AC)	294 VA (1.1A)	447 VA (1.7A)	749 VA (2.9A)	873 VA (3.3A)
Current consumption (24V DC)	5.9A	10.6A	16.7A	19.6A
Standby current (24V DC)	0.7A			0.9A
Input signal (sensitivity)	1V (+4 dBu) / 10 k Ohm via Phoenix connectors			
Input gain controls	-40 to +40 dBu			
Outputs	70 / 100V line and 4 Ohm			
4 Ohm output voltage	22.3 V	31.6 V	38.7 V	44.8 V
Output impedance (max load)	80 Ohm	40 Ohm	27 Ohm	20 Ohm
Frequency response	120 - 15 KHz @ 1 KHz +/- 3dB			
S/N ratio	>70 dB @ 1 KHz, 1V			
THD + N	< 1 %			
Protections	Thermal, short circuit, overload, fuse, in-rush current			
Cut off temperature	75°C			
Cooling system	Auto temperature controlled cooling fan with auto ON			
Indicators	LCD with temp, audio level and address			
Communication	RS485; 19.2 kbps			
Fault sensing	Internal Pilot Ton : 20 KHz, detection at 15 - 20 sec, 10 secs interval			
Fault detection response	Standby amplifier relay activation, fault dry contact			
Dimensions (W x H x D)	482 x 88 x 335 mm			
Net weight	11.60 kg	12.70 kg	16.50 kg	18.05 kg

## Packing Information

Carton size : 550 (L) x 465 (W) x 180 (H) mm

Gross weight : QP2125 - 13.50 kg

: QP2250 - 14.60 kg

: QP2375 - 18.00 kg

: QP2500 - 19.90 kg

1 unit per carton



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### QD2025

250W 100V Line

### QD2050

500W 100V Line

### QD2075

750W 100V Line

### QD2100

1000W 100V Line

**QD2000 series** are high performance Class D power amplifiers with high efficiency and broad frequency range suitable for wide range of speakers, be it full range or EVAC speakers.

The in-built Auto Fault Sensing circuit provides dry contact for easy standby fault changeover and the RS485 data port is available for remote monitoring by Amperes PMX III software.

- **100V** and **4 Ohm** outputs
- **High pass filter** for speaker protections
- **Auto fault sensor (AFS)** with dry contact
- High efficiency **Class D** power amplifier technology
- **AC** and **DC** operation for uninterrupted operation during power failure
- Built in **DC Soft Starter**
- **Switchable standby** input detection for lower consumption during DC back up
- **Remote monitoring** via RS485 data port, compatible with iPX500 data comm box

## Technical Specifications

	QD2025	QD2050	QD2075	QD2100
Operating voltage	220 - 240V AC: 50/60 Hz or 21 - 30V DC back up supply			
Rated output (rms at 100V)	250W	500W	750W	1000W
Power consumption (240V AC)	350 VA (1.3A)	650 VA (2.6A)	1000 VA (3.9A)	1300 VA (5.1A)
Current consumption (24V AC)	15A	25A	40A	50A
DC back up standby current	1.2A (With standby off)			
Input sensitivity (100V out)	1V rms balanced input via phoenix connector (15k Ohm)			
Input link (buffered)	0 dB balanced line (10k Ohm)			
Input signal standby	Switchable auto detect / always ON			
Input HF filter	150 Hz @-3dB slop via DIP switch			
Output	100V line / 4 Ohm			
4 Ohm output voltage	50V			
Frequency response	60-20 KHz (+/- 3dB, 1 KHz)			
S/N ratio	> 68 dB			
THD + N	< 1 %			
Protections	Thermal, short circuit, overload, AC and DC fuses, standby			
Cut off temperature	75°C			
Communications	RS485; 19.2 kbps			
Indicators	Signal, Temp, Fault, Power LEDs			
Fault relay	NO dry contact; 3A			
Cooling system	Auto temp controlled fan			
Operating temperature	-10° to 45°C			
Storage temperature	-40° to 70°C			
Humidity	95%			
Dimensions (W x H x D)	482 x 88 x 340 mm			
Net weight	6.8 kg	6.8 kg	7.0 kg	7.1 kg

## Packing Information

Carton size : 550 (L) x 465 (W) x 180 (H) mm

Gross weight : QD2025, 2050 - 8.40 kg

: QD2075, 2100 - 8.60 kg

1 unit per carton





### DP2240 / DP2500

2 x 240W 100V / 2 x 500W 100V

### DP4240

4 x 240W 100V

**DP2000 Series** are compact multi channel power amplifiers in a single HU, which greatly reduce the space required in equipment racks. They are powered by high efficiency and wide frequency response circuits, enabling it to deliver optimum sound quality and with lesser heat.

- **Wide range AC** supply with 24V DC back up
- Short circuit, overload, temperature and DC **protections**
- Individual balanced input with separate **volume adjustment**
- Switching power supply technology with **Class D** amplification
- **Compact** multichannel in 1 HU enclosure for rack spacing saving
- **Bandpass filter** to cut off unwanted bass audio and high pitch audio
- **Available** in 2 x 240W, 4 x 240W and 2 x 500W 100V line & 4 - 16 Ohm outputs
- Switchable sleep / ON mode when input signal is not presence for **energy saving**



### Technical Specifications

	DP2240	DP2500	DP4240
Ratings (rms) 100 V output	2 x 240W	2 x 500W	4 x 240W
Operating voltage	220 - 240V AC or 24V DC back up supply		
Power consumption (240V AC)	550 VA (2.3A)	1100 VA (4.6A)	
Current consumption (24V DC)	22 A	46 A	
Standby current (24V DC)	0.3 A		
Input signal (sensitivity)	0.775 V (0 dBu)/ 10k Ohm via phoenix connectors		
Input gain controls	-40 to +4 dBu		
Outputs	100V line and 4 - 16 Ohm		
4 Ohm output voltage	38 V		
Output impedance (max load)	40 Ohm / Ch	20 Ohm / Ch	40 Ohm / Ch
Frequency response	20 - 20 KHz @ 1 KHz +/- 3 dB		
S/N ratio	>80 dB @ 1 KHz, 1V		
THD + N	< 1 %, 1 KHz		
Protections	Thermal, short circuit, overload, fuse, in-rush current		
Cut off temperature	75°C		
Cooling system	Fan forced cooling		
Indications	LED: Protect, input audio, output and power		
Dimensions (W x H x D)	482 x 44 x 420 mm		
Weight	5.90 kg	6.90 kg	6.80 kg

### Packing Information

Carton size : 605 (L) x 560 (W) x 125 (H) mm

Gross weight: DP2240 - 7.75 kg

: DP2500 - 8.50 kg

: DP4240 - 8.40 kg

1 unit per carton



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# MA2012 MA2024 MA2036

Mixing Amplifier with Zone Selector

POWER AMPLIFIERS



## MA2012 / 2012P

120W 100V Line

## MA2024 / 2024P

240W 100V Line

## MA2036 / 2036P

360W 100V Line

**MA2000 series** of mixing amplifiers are built with Class D amplifier circuits, equipped with DC back up input and zone controls of 6 zones. It is suitable for small scale installation such as in showrooms, small prayer venues, offices, etc which require segregation of speaker zones.

Options are available for media player versions.

- **6 mic / line** selectable inputs, with front mic jack, phantom power
- **Bass and Treble** tone controls
- Optional **media player** module
- High efficiency **Class D** amp with 100V and 4 Ohm speaker outputs
- **Priority muting** for mic input 1 with adjustable muting level
- 6 zones speaker output with **All Call** and **remote trigger port**
- **AC** and **DC** operation for uninterrupted operation during power failure

## Technical Specifications

	MA2012/ 2012P	MA2024/ 2024P	MA2036/ 2036P
Ratings (rms) 100 V output	120W	240W	360W
Operating voltage	220 - 240V AC		
Power consumption (240V AC)	160W / 0.7A	285W / 1.2A	450 W / 1.9A
Input - Ch 1 and 2	Balanced Mic input with 12V Phantom Power (10k Ohm); Adjustable mute priority		
Ch 3 and 4	Balanced Mic / Line selectable with 12V Phantom Power (Mic: 10k Ohm, Line: 15k Ohm)		
Ch 5 and 6	Unbalanced input (15k Ohm) RCA 0 dBV		
THD + N (at rated power)	< 1 %		
S/N ratio	> 68 dB		
Tone controls	Bass (100 Hz), Treble (10 KHz) +/- 15 dB		
Frequency response	120 - 20 KHz (+/- 3 dB)		
Signal output	0 dBu balanced line		
Zone output	6 zone: Front switch and remote paging mic with All Call		
Power output -			
4 Ohm @ 1V rms input	50 V rms		
100V @ 1V rms input	100 V rms		
Protections	Thermal, short circuit, AC and DC fuses		
Indicators	Power, zone selection, signal level		
Cooling system	Thermostat controlled fan at 45 deg C		
Dimensions (W x H x D)	434 x 88 x 200 mm (without bracket)		
Weight	4.35 kg / 4.40 kg (P version)		

## Packing Information

Carton size : 550 (L) x 295 (W) x 165 (H) mm

Gross weight : MA2000 - 5.45 kg

: MA2000P - 5.50 kg

1 unit per carton





### MC2112 / 2112P

120W 100V Line

### MC2124 / 2124P

240W 100V Line

### MC2136 / 2136P

360W 100V Line

**MC2000 series** are basic mixing amplifiers has been further enhanced with Class D amplifier technology, known for its better efficiency, wider frequency band, light weight and compact in size.

**MC2000P** are units With media player module with USB / SD card MP3 playback, Bluetooth and FM tuner.

- **6 inputs** with front mic jack and phantom power
- **Bass and treble** tone controls
- Optional **media** player module
- **100V line** output with aux 4 Ohm speaker terminal
- High efficiency **Class D power amplifier** technology
- **Priority muting** for mic input 1 with adjustable muting level

## Technical Specifications

	MC2112 / 2112P	MC2124 / 2124P	MC2136 / 2136P
Ratings (rms) 100 V output	120W	240W	360W
Operating voltage	220 - 240V AC		
Power consumption (240V AC)	160W / 0.7A	285W / 1.2A	450 W / 1.9A
Input -	Ch 1 and 2      Balanced Mic input with 12V Phantom Power (10k Ohm); Adjustable mute priority Ch 3 and 4      Balanced Mic / Line selectable with 12V Phantom Power (Mic: 10k Ohm, Line: 15k Ohm) Ch 5 and 6      Unbalanced input (15k Ohm) RCA 0 dBV		
THD + N (at rated power)	< 1 %		
S/N ratio	> 68 dB		
Tone controls	Bass (100 Hz), Treble (10 KHz) +/- 15 dB		
Frequency response	120 - 20 KHz (+/- 3 dB)		
Signal output	0 dBu balanced line		
Power output -			
4 Ohm @ 1V rms input	50 V rms		
100V @ 1V rms input	100 V rms		
Protections	Thermal, short circuit, AC and DC fuses		
Indicators	Power, signal level		
Cooling system	Thermostat controlled fan at 45 deg C		
Dimensions (W x H x D)	434 x 88 x 200 mm (without bracket)		
Weight	3.40 / 3.45 kg (P version)		

## Packing Information

Carton size : 555 (L) x 295 (W) x 165 (H) mm

Gross weight : MC2100 - 4.45 kg

: MC2100P - 4.50 kg

1 unit per carton



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