

## BPA

### BRIDGING POWER AMPLIFIERS



#### MAIN CHARACTERISTICS

- 2 audio outputs for BPA-2120, BPA-2240 and BPA-2480 (100V/50V/8 Ohm selectable outputs)
- Fault reporting outputs
- Auto switch to sleep mode/active mode
- Two audio input gain control
- 2 channels BPA-2120, BPA-2240, BPA-2480 can be paralleled or bridged into one

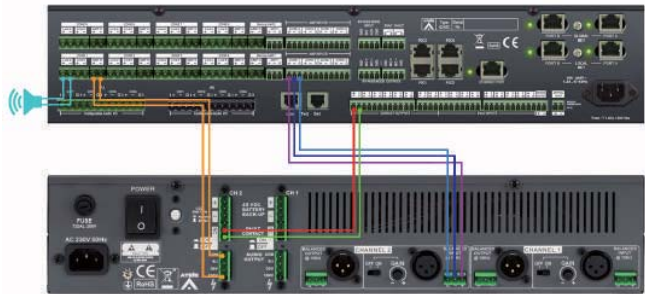
The BPA is a 2U 19" rack-mountable, 2-channel amplifier, transformer isolated for 100V/50V/70V or 35V constant voltage outputs and a low impedance output for 8 Ohm loudspeakers. The 2 line inputs are with a balanced 3-pin XLR input and a balanced 3-pin phoenix input. The BPA amplifier range consists of 4 models: BPA-2120(120W x 2), BPA-2240(240W x 2), BPA-2480(480W x 2) and BPA-1000(1000W x 1) and BPA-2120, BPA-2240, BPA-2480 can be paralleled or bridged by combining 2 channels into one.

The BPA amplifiers is designed to have short-to-ground, protection of short-circuit, overload and temperature. In additions, The BPA is also a green power saving unit which handles less power consumption by supporting auto sleep mode/active mode when signal is detected/not detected.

The BPA amplifier has a 230VAC and 110VAC mains supply and a 48VDC battery back-up input. The LEDs on the front panel of BPA show the status of the amplifier: power, fault, overload temp and VU Meter.



IDA8 & BPA  
 Wiring example



# Amplifiers

## BPA

### BRIDGING POWER AMPLIFIERS

#### CONTROLS AND INDICATORS

##### Front

- VU meter LED(-40dB, -20dB and 0 dB)
- Temperature overheat LED
- Overload LED
- Power LED
- Power fault LED

##### Back

- Power switch
- ON/OFF fault power LED

#### INTERCONNECTIONS

- AC power socket
- Line input 1(XLR or euro-terminal block/balanced)
- Line input 2(XLR or euro-terminal block/balanced)
- 100 V, 50 V, 8 ohm or 70V 35V outputs
- Channel 1 output terminal
- Channel 2 output terminal
- Two rotary level controls and ON/OFF switches
- EN54-16 LED switch
- Two 48VDC battery backup power input
- Fault contact

#### REGIONAL CERTIFICATIONS

Europe	Voice Alarm	EN54-16 certified 2012 CE – 0359 according to EN50130 – 4
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#### PARTS INCLUDED

Quantities	Components
1	BPA xxxx Bridging Power Amplifier
1	Power cord (type depends on region)
1	Set of connectors
1	Set of 19" rack mount brackets
1	Set of feet

#### TECHNICAL SPECIFICATIONS

##### Electrical

##### Mains power supply

Voltage	230 VAC ±10%, 50/60 Hz
Power consumption**	standby - idle* - full load(per ch.)
BPA2120	2.5 W – 11 W – 295 W
BPA2240	2.5 W – 11 W – 550 W
BPA2480	2.5 W – 13 W – 1000 W
BPA1000	3.0 W – 15 W – 1000 W

\*\* (Total Mains-power consumption)

\*Idle: Measured with 10 Volt surveillance tone on the output.

##### Fuse Rating

BPA2120	5 A@110 V, 2.5 A@250 V
BPA2240	8 A@110 V, 5 A@250 V
BPA2480	16 A@110 V, 7 A@250 V
BPA1000	18 A@110V, 9 A@250 V

##### Battery power supply

Voltage	48 - 53 VDC
Power consumption**	standby - idle* - full load(per ch.)
BPA2120	0.09 A – 0.16 A – 4.07 A
BPA2240	0.09 A – 0.23 A – 8.13 A
BPA2480	0.09 A – 0.23 A – 13 A
BPA1000	0.12 A – 0.23 A – 32 A

\*\* (Per ch. @ 48 VDC )

\*(Alarm cycle + 10 V pilot-tones @ 48 VDC)

##### Performance

##### inputs

Line inputs	2 x (One per channel)
Connector	3-pin XLR and 3-pin phoenix (electronically balanced)
Frequency response	+/-3 dB @ 50 Hz and 18 kHz
SNR	> 90 dB @ 1K Hz at full power
THD	< =1% @ 1 kHz
Input range	-6 dBV to 6 dBV / 770mV
Input impedance	22k Ohm

##### Outputs

Rated load resistance	83 Ohm (100 V); 20 Ohm (50 V)
Rated load capacitance	60 nF (100 V); 250 nF (50 V)
Rated output power	120 W (1 min. at 40°C) (per CH)

##### Loudspeakers outputs BPA2240

Rated load resistance	40 ohm (100 V); 10 ohm (50 V)
Rated load capacitance	125 nF (100 V); 500 nF (50 V)
Rated output power	240 W (1 min. at 40°C) (per CH)

##### Loudspeakers outputs BPA2480

Rated load resistance	20 ohm (100 V); 5 ohm (50 V)
Rated load capacitance	250 nF (100 V); 1 uF (50 V)
Rated output power	480 W (1 min. at 40°C) (per CH)

##### Loudspeakers outputs BPA1000

Rated load resistance	10 ohm (100V); 2.5 ohm (50V)
Rated load capacitance	521 nF (100V); 500 nF (50V)
Rated output power	240 W (1 min. at 40°C)(per CH)
Frequency response	20 Hz to 20 kHz @ -3 dB
SNR	> 90 dB (no pilot tone)
Crosstalk	< 80 dB at nominal load for 1 kHz
Distortion	< 1% (@ 1 kHz) @ -10dB of rated output

##### Mechanical

Dimensions (For 19" rack use with brackets)  
(H x W x D)

BPA2120 / BPA2240	2RU high, 88 x 430 x 375 mm (3-1/2" x 17" x 14-3/4")
BPA2480	2RU high, 88 x 430 x 430 mm (3-1/2" x 17" x 17")
BPA1000	2RU high, 88 x 425 x 430 mm (3-1/2" x 17-1/4 " x 17")

##### Weight

BPA2120	13.7 kg (30.2 lbs)
BPA2240	16.2 kg (35.7 lbs)
BPA2480	20.5 kg (45.1 lbs)
BPA1000	21 kg (46.2 lbs)

Mounting 19" rack mounting

Color RAL7016

##### Environmental

Operating temperature	-5°C ~ 55°C (23°F ~ 131°F)
Storage temperature	-40°C ~ 70°C (-40°F ~ 158°F)
Relative humidity	5% to 90%
Air pressure	600 to 1100 h Pa
Heat dissipation	
BPA2120	1160 BTU/hr
BPA2240	2110 BTU/hr
BPA2480	3550 BTU/hr