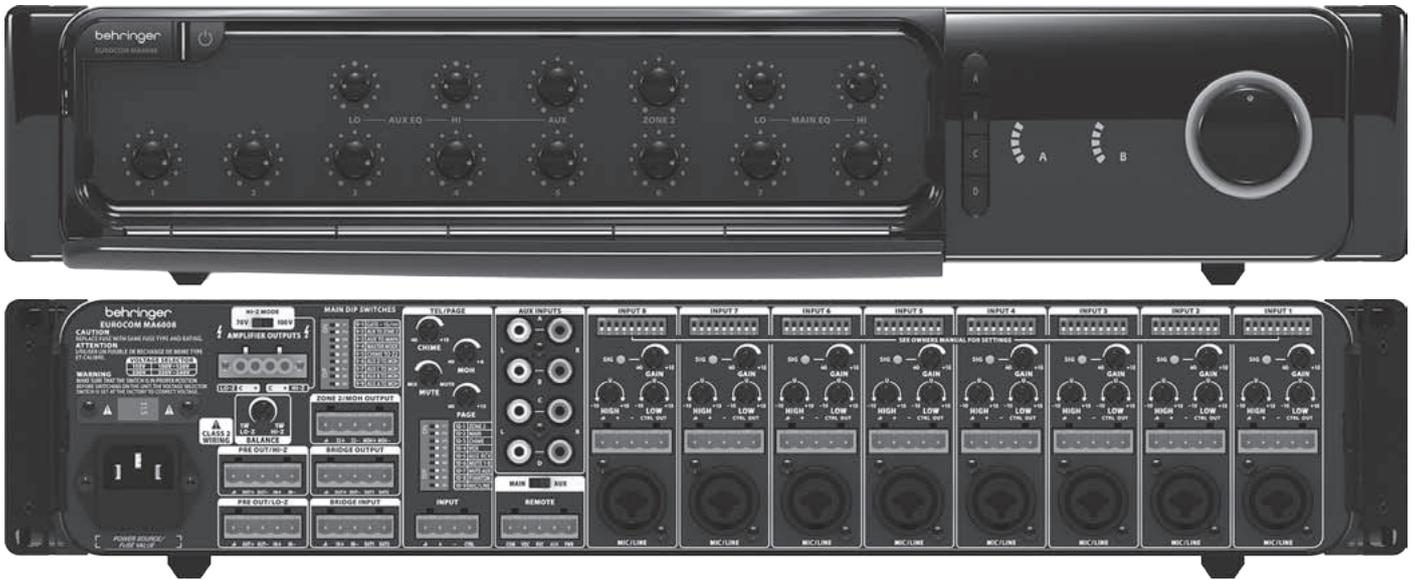


# MA6018/MA6008

Energy-Efficient, Multi-Function 80-Watt Auto-Mixing Amplifier with Dual 70/100 V and 4 Ohms Outputs



## Features

- Multi-function 80-Watt auto-mixing amplifier with dual 70/100 V and 4  $\Omega$  outputs, designed for continuous operation in distributed music, paging and AV applications
- State-of-the-art, energy-saving Switch-Mode Power technology with up to 67% power efficiency drastically reduces energy cost
- 2 transformerless, cool-running Class-D amplifiers simultaneously drive 70/100 V and 4  $\Omega$  loads with adjustable Balance control
- 8 Mic/Line inputs on XLR/TRS and Euroblock connectors, each with Lo and Hi frequency EQ, individual Trim control and post-trim input level LED
- Switchable Mic/Line, Phantom power, Main Mix and/or Zone 2 output, Mute Send/RCV, Remote Volume control, Chime, and Auto-mixing on each input
- 4 pair summed RCA Aux inputs are assignable to the Main Mix, Zone 2, and/or MOH
- Multi-featured, dedicated page input with assignable Chime, switchable Mic/Line and Phantom power
- Wired Remote volume, power control and aux channel selection plus remote volume assign switch
- Individual front panel input Level, Lo and Hi Main and Aux EQ, Aux input and Zone 2 Level controls
- Auto-dimming control illumination, dual channel VU meter, Power switch, and dual-function indicator ring surrounding Master volume control
- 4 front panel buttons select which four rear-panel Aux inputs are active and feeding the Main mix bus at any given time
- Main mix output on Euroblock connector with selectable 70/100 V and 8  $\Omega$  outputs. Zone 2 and MOH assignable output with independent gain control
- 2 Preamp Out/Amp In processing loops for each 70/100 V and 4  $\Omega$  output
- Dual bridging input/output connectors allow multiple units to be interconnected
- Detachable rack ears, screw covers, blank knob caps for control lock-out, IEC-type AC power cord and all mating Euroblock connectors included
- Independent DC and thermal overload protection plus automatic limiters for each amplifier prevent overload, clipping and distortion without shutting down audio
- Ultra-light, ultra-low noise and ultra-efficient switch-mode power supply for noise-free audio, superior transient response and low power consumption

# MA6018/MA6008

## Energy-Efficient, Multi-Function 80-Watt Auto-Mixing Amplifier with Dual 70/100 V and 4 Ohms Outputs

### Product Overview

EUROCOM MA6018/MA6008 professional mixer-amplifiers offer extraordinary flexibility and ease-of-use in an integrated rack-mountable system that is ideal for commercial sound in facilities such as conference rooms, houses of worship, restaurants, clubs, and similar applications involving foreground music and paging. Incorporating BEHRINGER's exclusive DualDrive technology, the MA6018/MA6008 is powered by two independent mono amplifiers, one with a high-impedance output that may be set to either 70 or 100 V, and the other with a standard low-impedance output. This versatile configuration enables easy installation of hybrid multi-zone systems combining distributed and low-impedance speakers, making the MA6018/MA6008 an innovative solution for a broad range of environments.

The MA6018/MA6008 includes eight main channels for balanced or unbalanced input from line-level sources or microphones, either standard or phantom powered. All channels accept input via both 5-pin Euroblock connectors (with control and direct-out pins) and XLR/TRS combination jacks. All main inputs are equipped with a signal LED, gain trim, and high and low EQ. A set of nine DIP switches on each channel assign the channel to main and/or Zone 2 buses, set mic/line input, phantom power on/off, set mute send/receive for channel muting, and enable remote volume control, auto-mixing, and chime activation for the channel. The level of each channel in the main mix is set with individual front-panel level controls.

Four additional auxiliary input channels, each with a pair of RCA jacks that are summed internally to mono, are provided for playback from external sources. A set of four front-panel buttons determine which aux input is currently sent to the main mix. Front panel controls are also provided for the level and the EQ of the aux input.

A 4-pin Euroblock connector provides an additional input (600  $\Omega$ , mic or line) for a telephone paging system. MA6018/MA6008 telephone/paging functions, configured via DIP switches, include assignable muting (signal, switch, or contact closure activated), an assignable chime, and assignment of any aux input to a Music on Hold (MOH) bus. Controls are provided for the level of the paging send to the main mix, the amount of ducking during pages, the volume of the paging chime, and the level of the Music on Hold feed.

MA6018/MA6008 outputs, all mono, include a single 4-pin Euroblock connector for both high-and low-Z outputs to loudspeakers as well as both Zone 2 and MOH outputs combined onto a single 5-pin Euroblock connector. The MOH out is fed from the main mix bus, while inputs to the Zone 2 mix, which may be fed to an external recorder or supplemental PA system, are assigned independently of the main mix. Each output has a level control, and neither is affected by master volume or EQ settings.

Additional MA6018/MA6008 connections include a 5-pin Euroblock for remote control, switchable between the main mix and the aux bus. Also on 5-pin Euroblock connectors are Bridge In and Bridge Out, which allow multiple MA6000 series units to be bridged under the control of one master unit. The master is determined by a setting on each unit's Main DIP switches, which also include settings for routing the aux inputs, the aux bus, and the chime.

In addition, the MA6018/MA6008 front panel includes a master level (main mix) knob—surrounded by an indicator ring that glows yellow when the unit is powered and flashes red at the onset of clipping—as well as high and low EQ to optimize the main-mix sound for any environment. Also included are a pair of LED meters that indicate Main Mix and Zone 2 output levels.

MA6018/MA6008 operation is extraordinarily energy-efficient thanks to transformerless Class-D amplifiers that utilize switch-mode power supplies. The amplifiers deliver 180 W (MA6018) or 80 W (MA6008) RMS into low-Z loads of 4  $\Omega$  and high-Z outputs of 70 or 100 V. A balance control adjusts the relative output of the two amps, and a line-level effects send/receive, used to insert external processing such as dynamics or EQ, is provided using a single 5-pin Euroblock connector for both amps. Each amplifier is protected with DC and thermal overload protection, as well as by automatic limiting that prevents overload, clipping, and distortion.

Combining powerful features and exceptional configurability with a streamlined interface that is ideal for non-technical users, EUROCOM MA6018/MA6008 mixer-amplifiers provide outstanding value and functionality for installed sound applications in a wide variety of commercial installations.

# MA6018/MA6008

## Energy-Efficient, Multi-Function 80-Watt Auto-Mixing Amplifier with Dual 70/100 V and 4 Ohms Outputs

### Technical Specifications

#### Audio Inputs

##### Mic / Line inputs 1 - 8

- Type 8 x XLR / ¼" TRS combo jacks 8 x 5-pin Euroblock in parallel
- Impedance Mic: -50 to 0 dBV, 600 Ω  
Line: -27 to 0 dBV, 600 Ω  
Electronically balanced

##### Auxiliary inputs

- Impedance 4 x RCA stereo summed  
-10 dBV, 10 kΩ, unbalanced

##### Tel / Page input

- Impedance 1 x 4-pin Euroblock  
Mic: -50 to 0 dBV, 600 Ω  
Line: -27 to 0 dBV, 600 Ω

##### Preamp 70 V input

- Impedance 1 x 5-pin Euroblock  
0 dBV, 600 Ω, balanced

##### Preamp 4 Ω input

- Impedance 1 x 5-pin Euroblock  
0 dBV, 600 Ω, balanced

##### Phantom power

24 VDC, switchable Inputs  
1-8 and Tel / Page

#### Audio Outputs

##### Amplifier output

- LO-Z 1 x 4-pin female Euroblock  
2 terminals @ 4 Ω
- HI-Z 2 terminals @ 70 V / 100 V, switchable
- Output regulation < 2 dB, no load to full load

##### Preamp HI-Z output

- Impedance 1 x 5-pin Euroblock  
0 dBV, 600 Ω, balanced

##### Preamp LO-Z output

- Impedance 1 x 5-pin Euroblock  
0 dBV, 600 Ω, balanced

##### Direct out 1 - 8

- Impedance 8 x 5-pin Euroblock  
0 dBV, 600 Ω, unbalanced

##### Z2 / MOH output

- Impedance 1 x 5-pin Euroblock  
0 dBV, 600 Ω, balanced

#### Amplifier

##### Amplifier channels

LO-Z: 1 x 4 Ω, minimum  
HI-Z: 1 x 70 / 100 V, switchable

##### Power output LO-Z (1 % THD, 1 kHz sine wave)

MA6018	MA6008
180 W RMS @ 4 Ω min.	80 W RMS @ 8 Ω min.

##### Power output HI-Z (1 % THD, 1 kHz sine wave)

180 W RMS 27 Ω min. @ 70 V 55 Ω min. @ 100 V	80 W RMS @ 70 V 80 W RMS @ 100 V 62 Ω min. @ 70 V 125 Ω min. @ 100 V
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#### System Information

##### Dynamic range

Mic: 65 dB  
Line: 80 dB

##### THD + N

0.5% @ 1 kHz, rated output

##### Frequency response

50 Hz - 18 kHz, ± 2 dB

##### Tone controls

Master: Low: ± 10 dB @ 100 Hz  
High: ± 10 dB @ 12 kHz  
Input 1-8: Low: ± 15 dB @ 100 Hz  
High: ± 15 dB @ 12 kHz

#### Control Connections

##### Remote

- Common 1 x 5-pin Euroblock connector  
-5 VDC, 100 mA current,  
short-circuit protected
  - Remote power +5 VDC, 100 mA current limited,  
short-circuit protected
  - RVC 10 kΩ linear-taper potentiometer
  - Aux input select Used in conjunction with wall remote  
to select aux input feeding main mix
  - Unit power on/off +5 VDC voltage make contact input,  
no open voltage
- Tel / Page 1 x 5-pin Euroblock, 1 terminal
- Control No-voltage make contact input;  
open voltage 5 VDC Short circuit: < 10 mA

##### Inputs 1-8

- Control No-voltage make contact input;  
open voltage 5 VDC Short circuit: < 10 mA

# MA6018/MA6008

## Energy-Efficient, Multi-Function 80-Watt Auto-Mixing Amplifier with Dual 70/100 V and 4 Ohms Outputs

### Technical Specifications continued

#### Indicators

Power	LED ring illumination (Yellow)
Overload / protection	LED ring indication (Red)
Output level	LED VU output meter (Yellow and Red while clipping)

#### Power Supply (Fuses)

Mains voltage	Switchable, 100 -120/220 - 240 VAC, 60/50 Hz	
Mains connector	Standard IEC receptacle	
	<b>MA6018</b>	<b>MA6008</b>
Fuse	T 6.3 AH 250 V / T 3.15 AH 250 V	T 5 AH 250 V / T 2.5 AH 250 V
Power efficiency	72% max.	67% max.
Power consumption	54 W @ idle	44 W @ idle
	110 W @ 1/8 power	70 W @ 1/8 power
	210 W @ 1/3 power	110 W @ 1/3 power
	500 W @ full power	240 W @ full power

#### Dimensions / Weight

	<b>MA6018</b>	<b>MA6008</b>
Dimensions (H x W x D)	3.5 x 17 x 16" / 88 x 432 x 406 mm	3.5 x 17 x 16" / 88 x 432 x 406 mm
Weight	14.1 lbs / 6.4 kg	13.7 lbs / 6.2 kg

# MA6018/MA6008

## Energy-Efficient, Multi-Function 80-Watt Auto-Mixing Amplifier with Dual 70/100 V and 4 Ohms Outputs

### Architect's and Engineer's Specifications

The mixer-amplifier shall be of rack-mountable multiinput design with built-in paging functions and two mono transformerless Class D power amplifiers with switch-mode power supplies, one low-Z and one high-Z (70/100 V) for distributed speaker systems.

**Controls and indicators** shall include the following:

- Power switch to turn the unit on and off
- Power Indicator displaying amber logo when unit is powered
- Master Volume knob for setting overall volume
- Indicator ring for power (yellow) and clipping (flashing red)
- VU meter to indicate amplifier signal level;
- HI EQ/LO EQ knobs to adjust the overall treble and bass
- Input level knobs (1-8) to set the relative level of each input
- Mains voltage switch to select 115 or 240 VAC
- High-Z output switch to select 70 or 100 V operation
- Phantom/Mic/Line switch (8) to select mode of each input channel
- Signal LED (8) per input to indicate signal present
- Gain screw pot (8) for each input to trim input gain
- Z2/MOH DIP switches (8) to assign inputs to the Z2/MOH out
- Function DIP switches (8) to assign inputs 5-8, enable signal inserts, and set the page input for line, mic, or phantom-power mic
- Page input screw pot to adjust paging input level
- Mute depth screw pot to set ducking of aux inputs during pages
- Z2/MOH output screw pot to adjust the level of the Z2/MOH feed
- Balance screw pot to adjust the relative output of the two amps

**Connections** to the mixer-amplifier shall include:

- Mic/Line inputs on eight XLR/TRS (¼-inch) combination jacks, eight 5-pin Euroblock connectors
- Aux inputs on four pairs of unbalanced line-level RCA jacks, each summed to mono
- Tel/Page input on a 4-pin Euroblock connector
- Output for both high- and low-Z on a 4-pin Euroblock connector
- Remote control input on 5-pin Euroblock connector
- AC power on IEC receptacle

# MA6018/MA6008

## Energy-Efficient, Multi-Function 80-Watt Auto-Mixing Amplifier with Dual 70/100 V and 4 Ohms Outputs

### Architect's and Engineer's Specifications Continued

**Protections incorporated** into the amplifier shall include automatic limiting and independent DC and thermal overload protection.

**Performance criteria met by the mixer-amplifier shall include:**

- RMS power output (1 kHz @ 1% THD) for the low-Z amp of 180 W @ 4  $\Omega$  (MA6018) and 80W @ 8  $\Omega$  (MA6008)
- RMS power output (1 kHz @ 1% THD) and for the high-Z (100/70 V) amp of 180 W (MA6018) and 80 W (MA6008)
- Frequency Response of 50 Hz-18 kHz, +/- 2 dB
- Dynamic range of 65 dB for Mic and 80 dB for Line
- Distortion (THD+N, 1 kHz) of 0.5% at rated output

**AC Power** requirements of the mixer-amplifier shall be:

- Mains voltage of 115 or 230 VAC at 50~60 Hz
- Power consumption ranging from 44 W idle to 240 W full power
- Power efficiency of 68% (max)

**Physical characteristics** of the mixer-amplifier shall be:

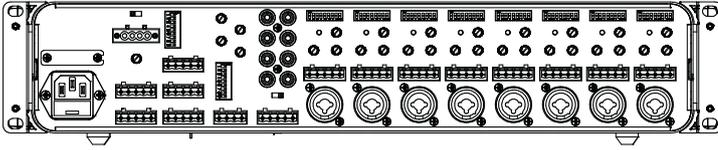
- Height x Width x Depth 3.5 x 17 x 16" / 88 x 432 x 406 mm
- Net weight of 14.1 lbs (6.4 kg) for MA6018 and 13.7 lbs (6.2 kg) for MA6008

The mixer-amplifier shall be the BEHRINGER EUROCOM MA6018/MA6008.

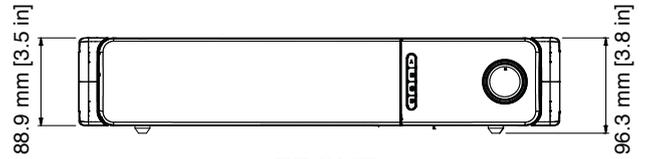
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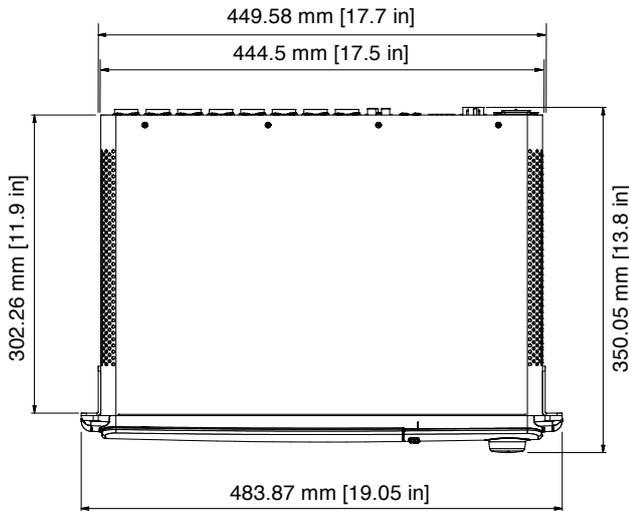
## Dimensional Drawings



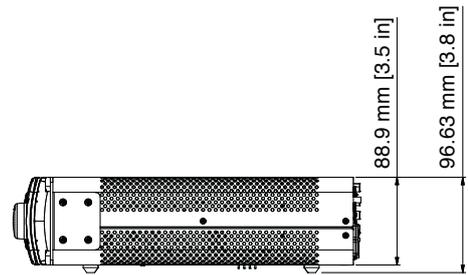
REAR



FRONT



TOP



SIDE