

U240:1 Power amplifier 240W, 1 channel



PRELIMINARY

Introducing the U240:1, a 240 W power amplifier designed to cater to the demands of small to medium-sized installations, where paramount considerations include quality, performance, and unwavering reliability. This amplifier is ideal for background music and crystal-clear voice announcement applications, making it a perfect fit for diverse environments such as bars, restaurants, retail outlets, educational institutions, houses of worship, museums, galleries, transport hubs, and conference centers. Thanks to its compact size, standing just one rack unit high and half rack wide, the U240:1 presents numerous installation possibilities, even in space-constrained settings. Included brackets facilitate both single and dual rack-mount configurations, while desktop and under-counter installations are equally viable. When rack-mounted side by side, two amplifiers can seamlessly inhabit a single rack unit, optimizing space utilization and effectively doubling both channel count and output power.

Functions

Advanced amplification technology

Incorporates class-D amplification topology for superior energy efficiency, product quality, and reliability compared to traditional linear power supply and class-AB amplification.

Compact form factor

- Full power output supporting 4Ω, 8Ω, 70 V and 100 V
- EMG override input, ensuring critical messages are heard clearly
- Selectable 120 Hz high-pass filters to customize audio output and eliminate unwanted low-frequency noise
- Space-saving compact ½ rack design, providing versatility without compromising performance
- Remote power OFF (Stand by), enhancing energy efficiency

Half rack, 1U enclosure ensures space-saving installation without compromising performance.

Full power at low and high impedance

Supports 70V, 100V, 4Ω, and 8Ω speaker systems, offering versatility in system design.

Remote power

Enables remote power ON/OFF functionality via contact closure, enhancing operational convenience.

Bass and treble adjustment

Allows fine-tuning of audio output with dedicated bass and treble adjustment controls.

High-pass filter

Available 120 Hz high-pass filters to tailor audio output according to application requirements.

Flexible mounting options

Offers versatile mounting possibilities including rack mount, side-by-side rack mount, table-top, or under-table mounting, facilitated by included brackets and accessories.

Emergency input

Features 100 V and Line In emergency input with level selection, ensuring critical messages are delivered clearly.

Protection

Equipped with overload and short circuit protection, along with a limiter to safeguard both the amplifier and loudspeaker against accidental overdriving. A temperature-controlled fan ensures optimal cooling without generating acoustic noise at lower output levels.

Protected control

Front panel devoid of controls; set it and forget it with gain, bass, and treble controls conveniently located on the rear panel for added security and ease of use.

Technical specifications

Electrical

Mains power supply	
	U240:1
Voltage	100 VAC - 240 VAC, 50/60 Hz
Power consumption	800 VA
• Standby (Remote OFF active)	1.25 W
• Idle mode	10 W / 12 W
Remote power (ON/OFF Stand by)	2-pin, Eurostyle, contact closure

Performance

Frequency response, -3 dB ref. 1 kHz	
• Any input to output	<10 Hz – 22 kHz
Distortion	<1% @rated output power, 1 kHz
Output stage topology	Class D
Equalization	
Bass shelving	±12 dB / 150 Hz – 3 dB (100 Hz)
Treble shelving	±12 dB / 5 kHz – 3 dB (10 kHz)

Filter

• LO-CUT permanently	f=20 Hz, 12 dB/oct.
• LO-CUT switchable, can be activated	f=120 Hz, 12 dB/oct.

General

Front status LEDs	
• Protect (Red)	Protection, short circuit
• Peak (Red)	1 dB before clip (input and output)
• Signal (Green)	Input and output signal
• Call (Green)	EMG
• Power (Green)	Power on condition
DIP switches	EMG (HiZ/Line level), HPF (120 Hz), Output (HiZ/LowZ), Amp mode (70 V/100 V; 4Ω/8Ω)

General

Protections

• Amplifier	Audio limiters, high temperature, DC, HF, short circuit, over current protection
• Switching mode power supply (μPC controlled)	Mains over/under voltage protection, inrush current limiter, mains over current, high temperature
• Remote power OFF	Contact closure

Inputs

Number of inputs	1
Input	
Type	Line
Connector	RCA (chinch), stereo converted to mono, unbalanced; 3-pin Eurostyle, balanced
Sensitivity	100 mV
Impedance	4.6 kΩ
S/N (flat @max volume)	>60 dB
S/N (flat @min volume/muted)	>95 dB
Headroom	>19 dB

EMG Input

Type	Line; 100 V
Connector	2-pin, balanced
S/N (A-weighted)	≥98 dB

Loudspeaker output

Connector	4-pin Eurostyle (2 pin for LowZ, 2 pin for HiZ)
Rated output power	240 W
Max output voltage, 1 kHz, THD=0.5%, no load	4 Ω 8 Ω 70 V 100 V 31 V _{RMS} 45 V _{RMS}

Mechanical

Enclosure

IEC protection class	Class I (grounded)
Dimensions (HxWxD), without accessories	44.2 mm x 218 mm x 217.7 mm (1.74 in x 8.6 in x 8.57 in)
Color in RAL	RAL 9017 Traffic black
Net weight (without accessories)	1.86 kg (4.10 lb)
Net weight (with accessories)	2.32 kg (5.11 lb)
Shipping weight	2.68 kg (5.90 lb)
Mounting	Stand-alone; 19" rack; rack side-by-side; half 19" rack; table-top; under-table

Environmental

Climatic conditions

Cooling concept	Four-stage-fans (Off / Slow / Medium / Fast)
Operating temperature	-5°C – 45°C (23°F – 113°F)
Storage temperature	-40°C – 70°C (-40°F – 158°F)

PRELIMINARY

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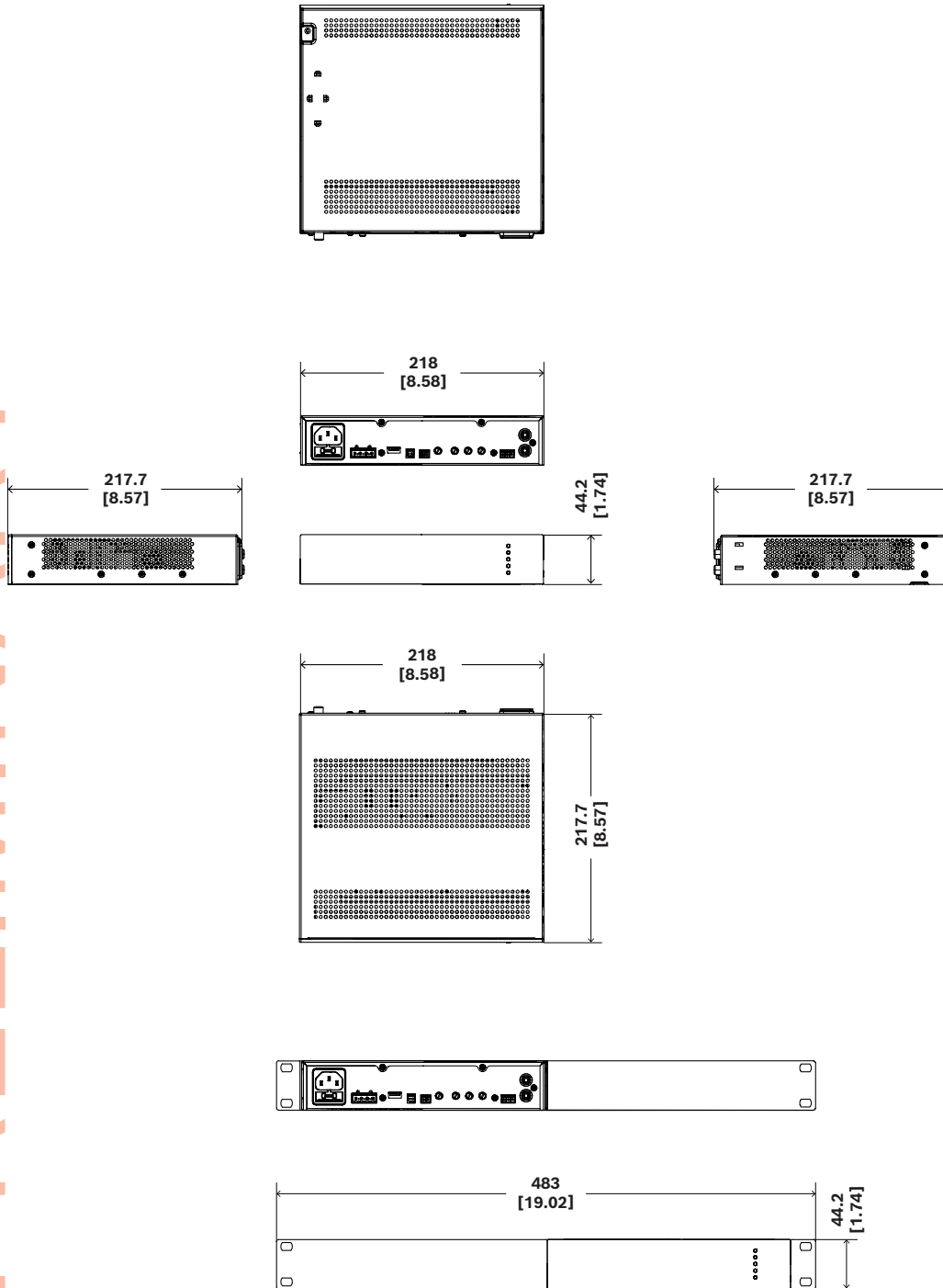


Fig. 1: Dimensions

mm [in]

U240:1-US Power amplifier 240W 1 channel, US
 1-channel, 240 W power amplifier with power sharing.
 Order number **U240:1-US | F.01U.425.743**

Ordering information

U240:1-CN Power amplifier 240W 1 channel, CN
 1-channel, 240 W power amplifier with power sharing.
 Order number **U240:1-CN | F.01U.425.745**

U240:1-EU Power amplifier 240W 1 channel, EU
 1-channel, 240 W power amplifier with power sharing.
 Order number **U240:1-EU | F.01U.425.741**

PRELIMINARY

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