

U240:1M Mixer amplifier 240W, 1 channel



- Versatile inputs: 4 inputs - 2 aux and 2 mic/line options with phantom power support
- Full power output supporting 4Ω, 8Ω, 70 V and 100 V
- EMG override input, ensuring critical messages are heard clearly
- Contact override for call station with 2-tone chime for attention-grabbing alerts
- 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
- Voice-over ducking that automatically adjusts background music volume for clear voice communication
- Remote power OFF (Stand by), enhancing energy efficiency

Introducing the U240:1M, a 240 W mixer amplifier designed to cater to the demands of small to medium-sized installations, where paramount considerations include quality, performance, and unwavering reliability. This mixer 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 U240:1M 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

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.

PRELIMINARY

Phantom power

Facilitates microphone operation with power supplied to both microphone inputs.

VOX Ducking

Prioritizes voice input, enhancing clarity during announcements or speeches.

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.

Accessible front controls

Conveniently adjust output gain, input gain per channel, and bass and treble settings directly from the front panel for effortless customization.

Technical specifications

Electrical

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

Performance

Frequency response, -3 dB ref. 1 kHz

• Any input to output	<10 Hz—22 kHz
• Any input to LINE output	<10 Hz—65 kHz
Distortion	<1% @rated output power, 1 kHz
Output stage topology	Class D

Equalization

• Bass shelving	\pm 12 dB / 150 Hz—3 dB (100 Hz)
• Treble shelving	\pm 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 / priority trigger / Vox input active
• Power (Green)	Power on condition

DIP switches	EMG (HiZ/LowZ), Two-tone Chime (ON/OFF), HPF (120 Hz), VOX (ON/OFF), Phantom power (+48 V/OFF) Output (HiZ/LowZ), Amp mode (70 V/100 V; 4 Ω /8 Ω)
--------------	--

Protections

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

Inputs

Number of inputs	2 mic/line, 2 aux (+EMG)
------------------	--------------------------

Sensitivity with all level controls in max. position

• MIC / Call station	-68 dBu (300 μ V)
• AUX (only L or R)	-22 dBu (60 mV)
• AUX (Stereo) (L and R)	-28 dBu (30 mV)

Maximum input level

• MIC / Call station	+8 dBu
----------------------	--------

Input impedances

MIC / Call station	10 k Ω
AUX	4.7 k Ω
EMG (Line)	>15 k Ω
EMG (HiZ)	>470 k Ω

Inputs

LINE (L and R)	75 Ω
Noise, MIC input to output, A-weighted, (HiZ 100 V)	-60 dBu

Input 1

Type	Mic/Line, contact override with chime
------	---------------------------------------

Connector	3-pin XLR, balanced / 5-pin Eurostyle, balanced (3 pin for input, 2 pin for trigger)
-----------	--

Dynamic range	61 dB (Mic gain min – max)
---------------	----------------------------

S/N (A-weighted)	≥ 98 dB
------------------	--------------

Phantom power supply, switchable	48 V DC
----------------------------------	---------

Input 2

Type	Mic/Line, VOX ducker override
------	-------------------------------

Connector	3-pin XLR, balanced
-----------	---------------------

VOX Ducking	Ducking control 0 dB – -45 dB
-------------	-------------------------------

VOX Threshold	-60dBu – +8 dBu, adjustable
---------------	-----------------------------

Dynamic range	61 dB (Mic gain min – max)
---------------	----------------------------

S/N (A-weighted)	≥ 98 dB
------------------	--------------

Phantom power supply, switchable	48 V DC
----------------------------------	---------

Input 3

Type	Line
------	------

Connector	RCA (chinch), stereo converted to mono, unbalanced
-----------	--

S/N (A-weighted)	≥ 98 dB
------------------	--------------

Input 4

Type	Line
------	------

Connector	RCA (chinch), stereo converted to mono, unbalanced
-----------	--

S/N (A-weighted)	≥ 98 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)
---	---

Enclosure

Color in RAL	RAL 9017 Traffic black
--------------	------------------------

Net weight (without accessories)	1.85 kg (4.07 lb)
----------------------------------	----------------------

Net weight (with accessories)	2.31 kg (5.09 lb)
-------------------------------	----------------------

Shipping weight	2.67 kg (5.88 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

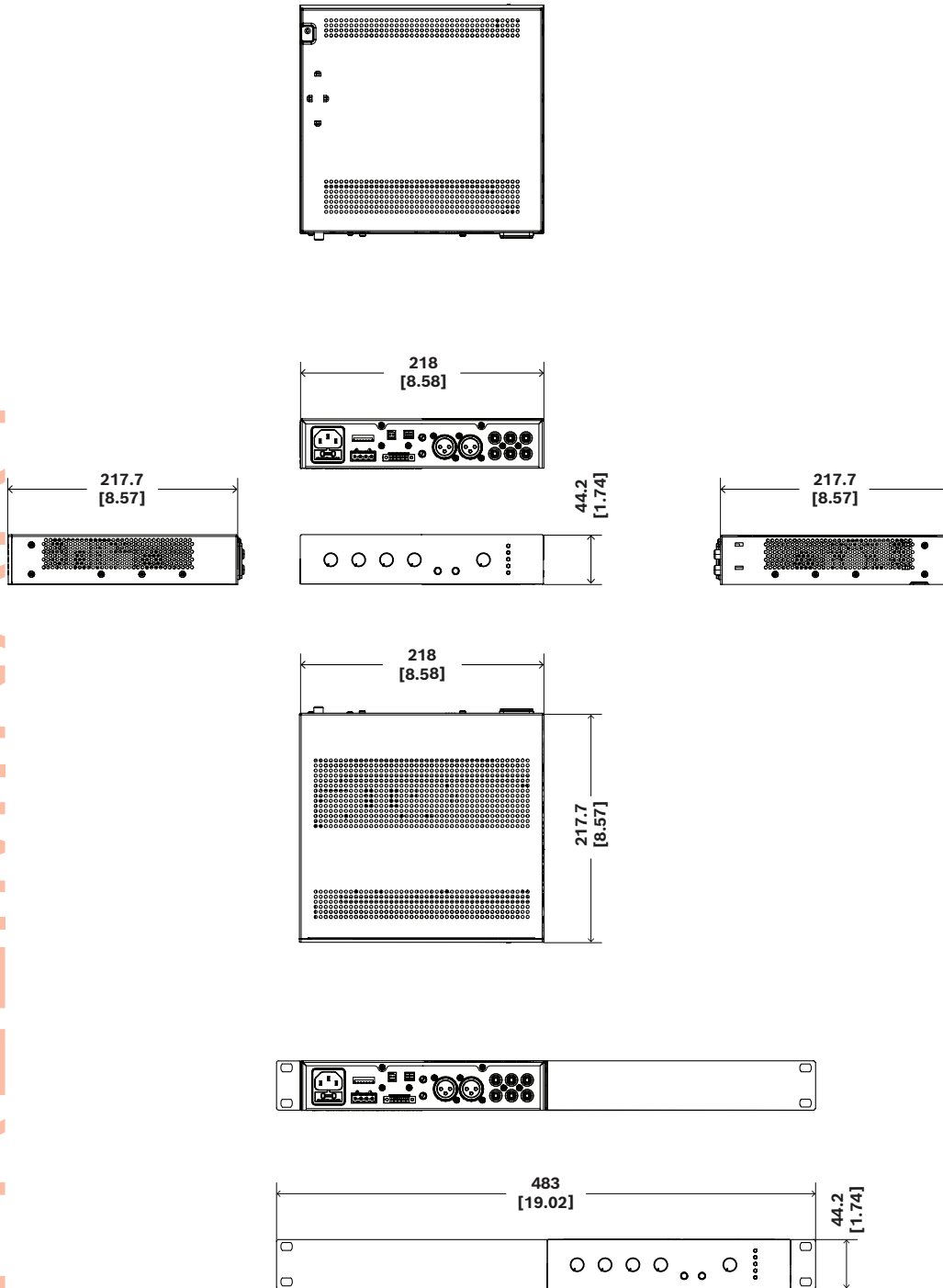


Fig. 1: Dimensions

mm [in]

U240:1M-US Mixer amplifier 240W 1 channel, US
 1-channel, 240 W mixer amplifier
 Order number **U240:1M-US | F.01U.425.753**

Accessories

PLE-1CS Call station, all-call
 An all-zone call station with 2 m cable and lockable Euro style connector.
 Order number **PLE-1CS | F.01U.066.940**

Ordering information

U240:1M-CN Mixer amplifier 240W 1 channel, CN
 1-channel, 240 W mixer amplifier
 Order number **U240:1M-CN | F.01U.425.757**

U240:1M-EU Mixer amplifier 240W 1 channel, EU
 1-channel, 240 W mixer amplifier
 Order number **U240:1M-EU | F.01U.425.749**

PRELIMINARY

Represented by:

Bosch Security Systems B.V.
Torenallee 49
5617 BA Eindhoven
Netherlands
www.dynacord.com