

Installed Sound

CA601

60 Watt Commercial Amplifier with
Energy Star Certification

- 60 Watt amplifier for commercial and industrial applications
- Low-Z (4/8 Ohm) and High-Z (70/100 V) operation with switchable high-pass filter
- Energy Star* certified design conserves energy and drastically reduces operational cost
- Direct drive, constant power technology for superior audio performance and reliability
- GPI remote volume control using standard RJ-45 connector and Ethernet cable
- Individual front panel master volume and bass/treble controls
- Auto Ramp circuitry for quiet and fast power up/down enables real-world energy savings
- Front panel power control button for direct access
- Rack-mountable 1U, half-rack width enclosure with joining brackets for rack, table and wall mounting
- Euroblock type amplifier input and output connectors
- Convection-cooled, fan-less amplifier technology for low noise
- 10-Year Warranty Program*
- Designed and engineered in Sweden



The CA601 60-Watt Commercial Amplifier provides the perfect solution for commercial and industrial applications requiring great sounding distributed audio coupled with power conservation and reduced operating expense. Capable of delivering high-quality sound over both Low-Z (4/8 Ohm) and High-Z (70/100 V) loudspeaker configurations offering extreme flexibility on every channel. The CA601 is easy to install and operate – even for non-technical personnel. Simply put, the CA601 is ideal-suited for bars & restaurants, retail destinations, hotels, corporate, education or other venues needing background music and/or a public address system.



Energy Star* Certified

Not only does CA601's direct drive constant power technology provide superior audio performance and reliability, it also consumes less mains power than competing models, which has earned it Energy Star certification.

This amazing technology makes it possible to design and build powerful amplifier systems that not only save money on the electrical bill, but also reduce the requirements and cost at the installation for the mains supply. In fact, it is likely that installation can be done utilising the in-place mains infrastructure. This adds up to significant installation and operational savings and protects the environment.



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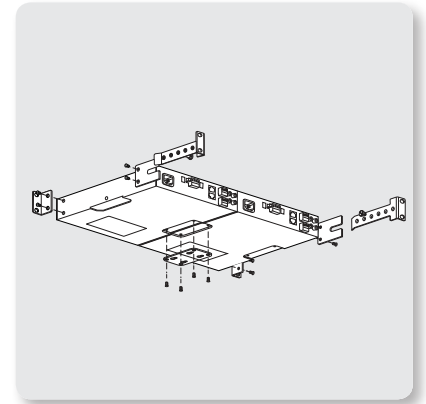
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Easy to Install

The CA601 comes equipped with rubber feet, enabling the amps to be placed on a desk, shelf or any clear surface without any additional installation requirements. However, optional rack mounting hardware is also supplied, allowing one or several models to be housed and protected inside an enclosure. This adds extensive flexibility as a single product can be housed in a half 19" rack or full rack enclosure as well as a pair of amplifiers can easily be mounted side-by-side in a single rack space. With the included brackets the unit can also be mounted to a wall or under a table/shelf.



Automatic Power On/Off

The CA601 has a flexible power scheme with seamless and automatic power on/off based on the input signal, which reduces consumption when a signal is not present. With virtually zero configuration required, an energy smart and hassle-free amplifier system can easily be set up for hands-off operation. If the CA601 is powered on but does not receive an input signal for 20 minutes, the system automatically enters sleep mode to reduce power consumption. As soon as the Auto Ramp circuit detects a signal, the system powers on and normal operation resumes. The amplifier can also be instantly forced into standby mode or awakened via the front panel power button.

Sublimely Simple Controls

CA601's controls are sublimely intuitive, allowing the operator to quickly make adjustments. The front panel power button and Master volume knob are easily accessible, enabling virtually anyone to operate the system. Bass and Treble controls are also available for fine tuning – but require a tool when making changes.



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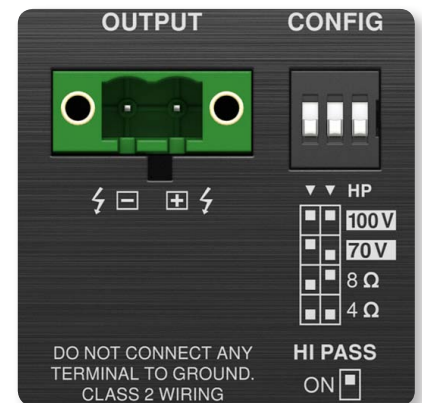


Easy to Hook Up

For connecting a balanced source such as a mixer or audio processor, a standard 3-pin Euroblock Input socket is provided. Alternatively, RCA cables can be connected for unbalanced stereo sources (summed to mono), such as players, phones or computers, however only one input source should be used at a time. Loudspeaker Output is provided in the form of a standard 2-pin Euroblock socket.

Output Configuration

Intuitive configuration of the flexible output channels is provided directly adjacent to the rear panel Euroblock output connector with dipswitches, which allow selection of 100 V, 70 V, 8 Ω , or 4 Ω operation. This configures both the maximum voltage of the output and the gain through the device. An individual control engages the built-in high-pass filter, which should be used on all constant voltage systems to avoid saturation on transformer-enabled loudspeakers and to help maintain sound integrity.



Expandable Remote Control

The RJ45 receptacle on the rear panel opens up a broad range of remote control options, including the CRC-V Series of wall controllers and a stylish tabletop controller, the LAB.LEVEL. All can be interconnected via inexpensive and readily-available Ethernet cabling.

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System Scalability

Commercial installs vary widely in scope and often grow and change over time. The CA601 is part of a family of products that provides both single and dual zone products that are perfect for building out a system to any size. With its individual zone volume and remote control capabilities, the CA601 is an ideal building block for a dynamic and scalable system solution.



Real-World Energy Savings

The CA601 60-Watt Commercial Amplifier makes it easy to bring highest-quality music and announcements to commercial and industrial environments in an easy to integrate – and even easier to operate system. Plus, with features such as its Auto Ramp and revolutionary direct drive constant power technology, the Energy Star certified CA601 can generate enough energy savings to pay for itself in virtually no time at all.

You Are Covered

We always strive to provide the best possible Customer Experience. Our products are made in our own Music Tribe factory using state-of-the-art automation, enhanced production workflows and quality assurance labs with the most sophisticated test equipment available in the world. As a result, we have one of the lowest product failure rates in the industry, and we confidently back it up with a generous Warranty program.



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Technical Specifications

Maximum Output Power

4 Ω per channel	60 W
8 Ω per channel	60 W
70 V per channel	60 W
100 V per channel	60 W

Number of Output Channels

Number	1
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Minimum Load Impedance

4 Ω mode	4 Ω
8 Ω mode	8 Ω
70 V output mode	82 Ω
100 V output mode	166 Ω

Limiter Voltage / Amp Gain

4 Ω mode	22 V _{peak} / 22 dB
8 Ω mode	31 V _{peak} / 25 dB
70 V output mode	100 V _{peak} / 35 dB
100 V output mode	141 V _{peak} / 38 dB

Controls

Front	Power standby button, gain control, tone controls - bass and treble
Rear	Load config - (4 Ω / 8 Ω / 70 V / 100 V), switchable 80 Hz high-pass filter

Tone Controls

Bass	± 10 dB @ 100 Hz
Treble	± 10 dB @ 10 kHz

Indicators

Power	On (blue), force standby (red), sleep (yellow)
Master Signal (green LED)	>12.3 mV (-36 dBu)
Limit (red LED)	Input clip, output limit
Fault (red LED)	Overheat, DC fault, over current, etc

System

Inputs	1 x 3-pin 5.08 mm Euroblock connector 1 x RCA stereo summed
Input impedance	10 k Ω unbalanced and RCA, 20 k Ω balanced
Input sensitivity	Balanced: 1.23 V (+4 dBu) RCA: 0.62 V (-2 dBu) each for mono sum RCA
Maximum input level	9.75 V (+22 dBu)
Outputs	1 x 2-pin 5.08 mm Euroblock connector
Output circuit type	Class D
Remote connector	1 x RJ45 connector

Performance

Distortion, 1/8 rated power	<0.05%
Frequency response	20 Hz to 20 kHz, +0.5 / -1 dB
Crosstalk (2 channel models)	>85 dB
Signal-to-noise	>97 dBA
High-pass filter	80 Hz HPF

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Circuit Protection

Cooling	Convection-cooled, fanless
Amplifier protection	Thermal protection, over current protection, DC protection, high frequency protection
Load protection	Controlled start and shutdown behaviour, DC-fault protection

Power Supply, Voltage (Fuse)

Main voltage	100-240 V~, 50/60 Hz
Fuse	T 3.15 A L 250 V
Power consumption 1/8th rated power @ 4 Ω	40 W
Mains connector	Standard IEC connector

Dimensions / Weight

Dimensions (H x W x D)	44 x 218 x 299 mm (1.7 x 8.6 x 11.8")
Weight	2.2 kg (4.9 lbs)
Finish	Brushed black anodized aluminum chassis with black painted steel bottom
Approvals	CE, cTUVus, PSE, CCC, RoHS, FCC part 15 Class B and Energy Star 3.0

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Architecture & Engineering Specifications

Amplification and performance

The power amplifier shall provide one channel of amplification capable of driving either low-impedance or high-impedance (70/100 V) loads. Maximum output with both channels driven shall be 60 W per channel into 4, 8 Ohm as well as 70 and 100 V mode. Output mode shall be configurable and shall adapt both gain and output voltage limiter for the given load. The output shall have a switchable high-pass filter with a cut off frequency of 80 Hz. The amplifier shall exhibit the following performance parameters: frequency response shall be 20 Hz to 20 kHz +0.5/-1 dB, signal-to-noise ratio shall be greater than 97 dBA and THD at 1/8th of rated power shall be less than 0.05 %. The amplifier shall have built in thermal protection, over current protection, DC protection, high frequency protection and controlled start and shutdown behavior.

Connectors, Controls and Indicators

The following connectors and controls shall be provided on the rear panel of the amplifier. The per channel input connectors shall be electronically balanced, 3-pin detachable screw terminals and stereo RCA connectors with optimized input sensitivity. The output connector shall be a 2-pin detachable screw terminal. The output mode configuration and high-pass filter shall be configurable with DIP switches. Remote volume control shall be available as a RJ-45 connector for integration to external volume control potentiometer. On the front panel of the amplifier, a per channel detented volume knob shall provide level adjustment from -infinity to 0 dB. Also, a per channel base and treble EQ control shall be available that shall require a tool to operate. A power switch shall toggle between On and Standby power states. The following LED indicators shall be provided on the front panel of the amplifier: One tri-color power indicator and one, per channel indicator for signal present, limiter and fault active.

Power Supply, Protection and Cooling

The power supply shall be a universal type (AC line input between 100 and 240 VAC at 50 or 60 Hz) and be supplied through a standard IEC connector on the rear panel of the amplifier. The power supply shall provide auto power down and auto power on with signal present to preserve energy consumption. The efficiency of the amplifier shall be high and the standby power consumption shall be less than 1 W. The amplifier shall be Energy Star 3.0 certified. The amplifier shall be convection cooled and have no ambient noise.

Physical and approvals

The amplifier shall be the following dimensions (H x W x D) 44 x 218 x 299 mm (1.7 x 8.6 x 11.8"). The weight shall be no more than 2.2 kg (4.9 lbs). The chassis shall be brushed black anodized aluminum chassis with black painted steel bottom. With the included bracketry the amplifier shall be possible to mount on a surface or in a half width 19" rack, full width 19" rack as a single unit or combined with another unit in the same series. The amplifier shall be approved for use as specified by CE, cTUVus, PSE, CCC, RoHS and FCC part 15 Class B. The amplifier shall have a warranty of 10 years or more.

The amplifier shall be the Lab.gruppen CA601

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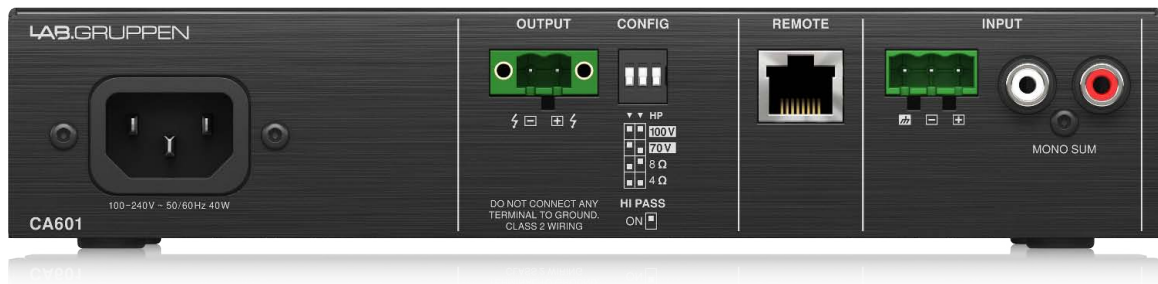
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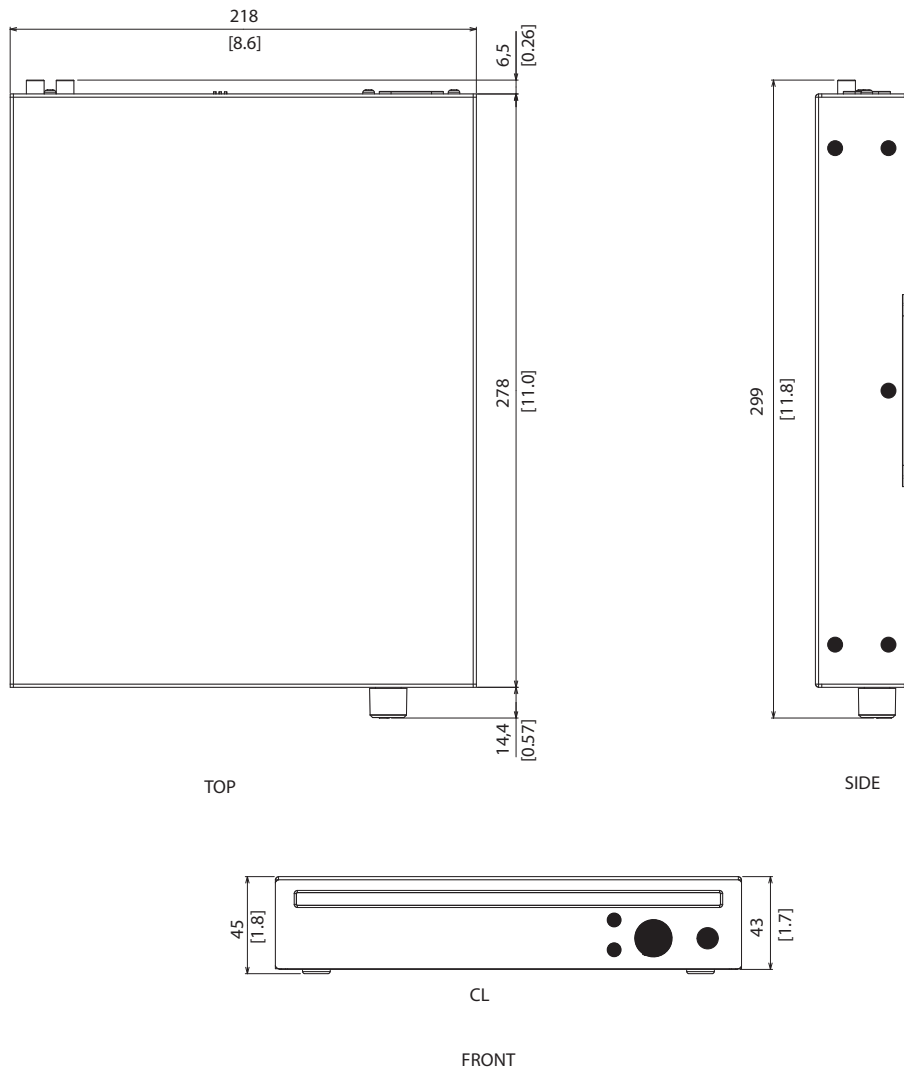


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Dimensions

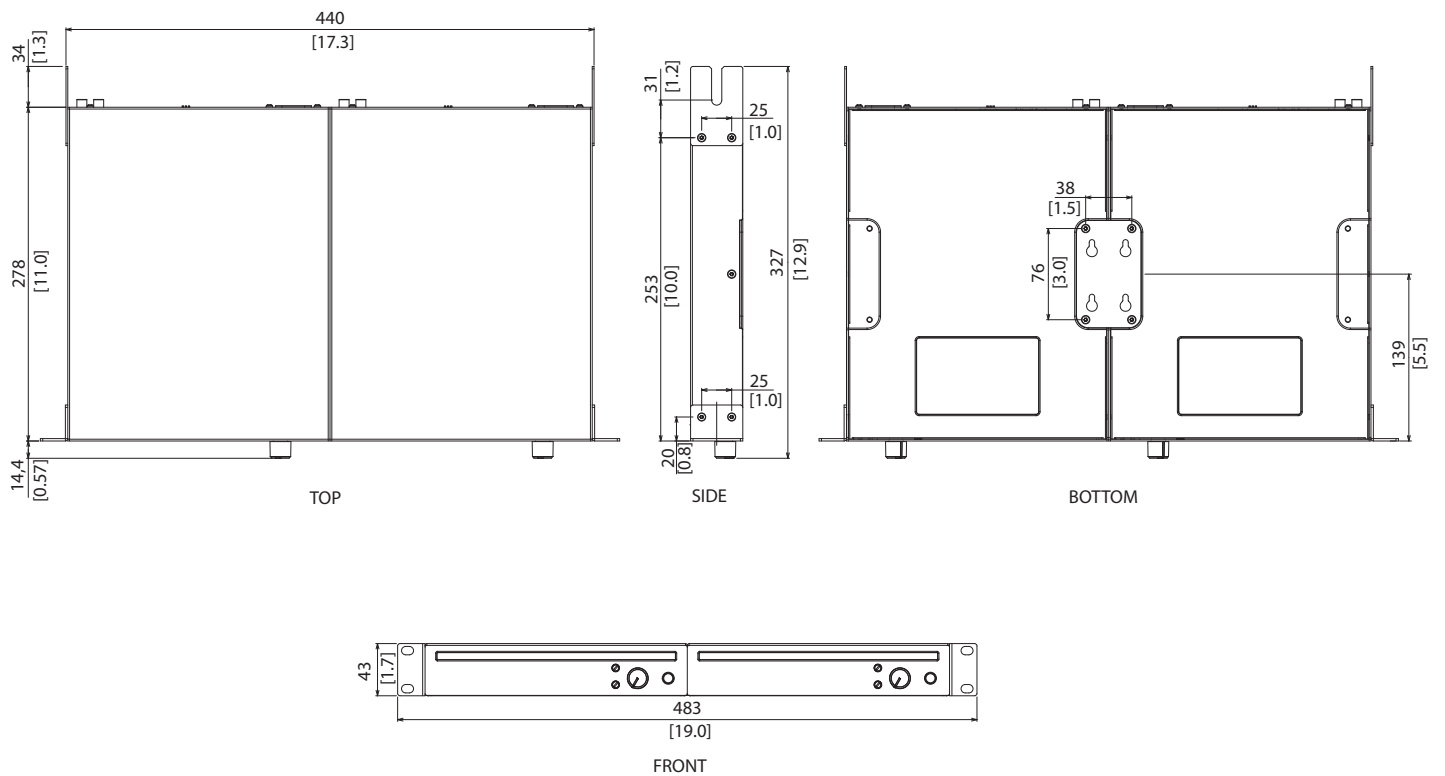


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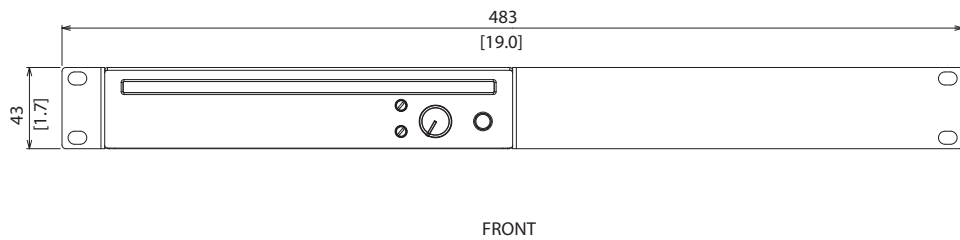
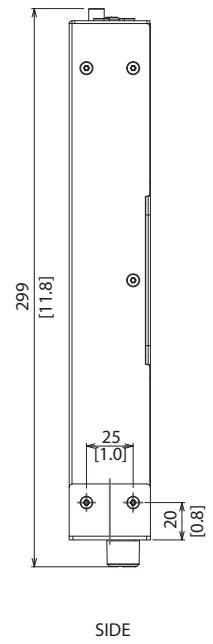
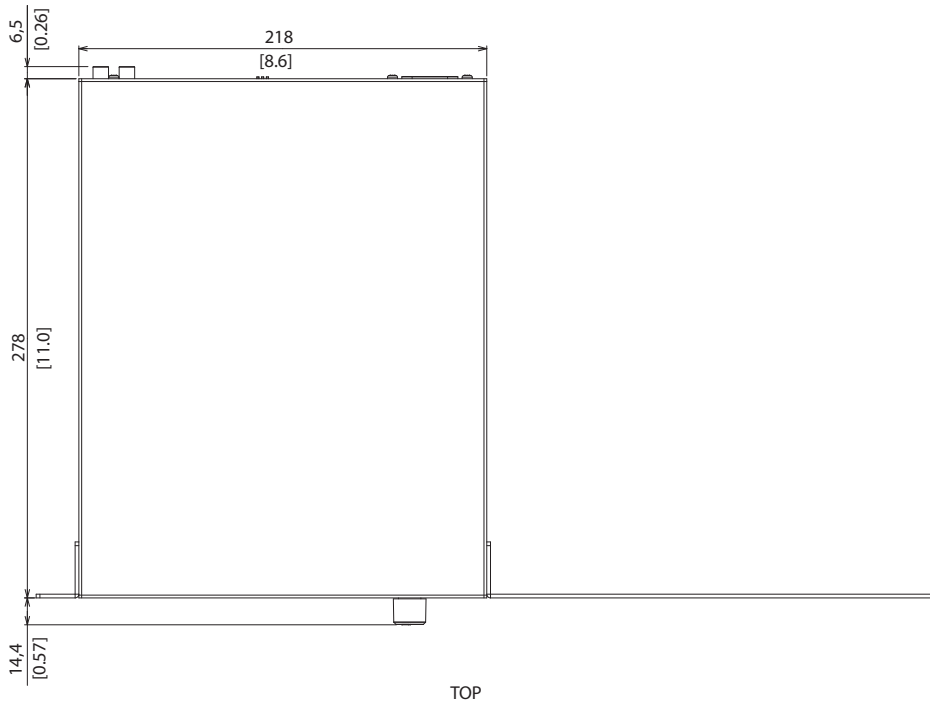


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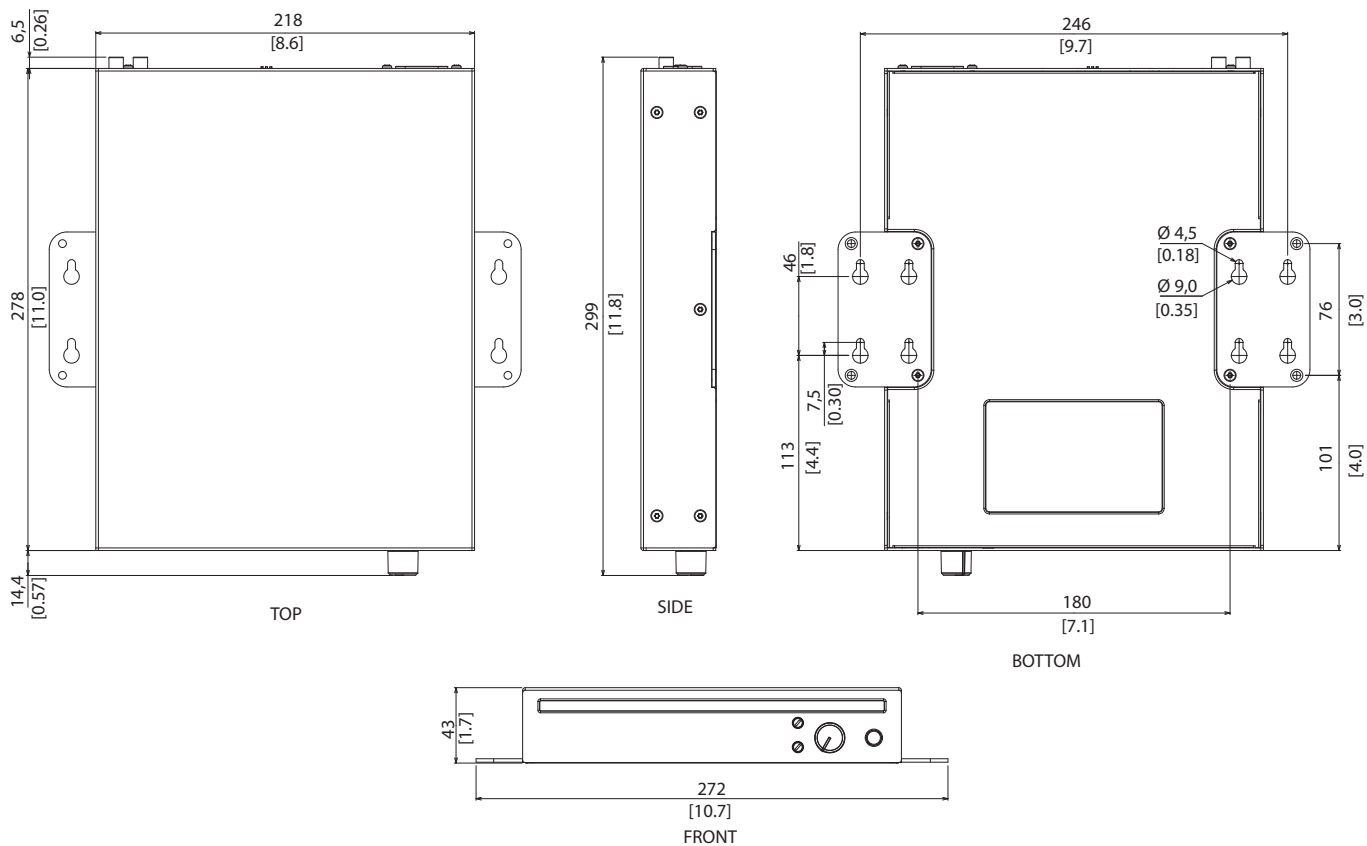


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Dimensions



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