

STV SERIES

The purpose of the STV Series of amplifiers is to improve the amplification, control and safety features of professional PA systems.

The STV Series offers output power ranging from 200W up to 800W per channel, with configurations of 2 or 4 channels for 200W and 400W and of 2 channels for 800W. Likewise, all versions have an integrated DSP with equalizers, loudness feature, and selectable filters, etc.

The option to integrate the ETX-1 module enables connecting all the control and monitoring functions to a 100 Mbit Ethernet network. The series also incorporates a graphical display with a navigation interface to configure and monitor the main functions.

The NormaNet unit provides all the necessary functions to be used in evacuation systems certified by standard EN/UNE 60849. This unit has an integrated matrix to be connected to an auxiliary redundant system, with priority configuration and active signal regeneration for interconnection with multiple amplifiers.

As an option, the STV Series can include digital audio inputs using the CobraNet™ protocol for distribution systems through the optional ETX-1CN module.



Functional features:

- 200, 400, 800 W power per channel (2 or 4 channel configuration, depending on model)
- Dimensions for 2 19" rack units for all models
- Forced independent ventilation through adjustable speed channel
- Continuous adjustable gain for each channel and auxiliary input
- Slow start-up to avoid high peak power supply when turning on
- Removable Phoenix-type connectors for installation
- User-friendly LED indicators showing start-up, protection, standby, priority, communication, state of lines, VU meter, etc.
- Graphic display and navigation control for configuration / monitoring
- Temperature, DC, infrasonic and short circuit protection
- Power supply by means of high power toroidal transformer
- Expansion bay for installation of ETX-1 and ETX-1CN modules

STV SERIES

STV SERIES TECHNICAL SPECIFICATIONS	
Output power	200, 400 and 800W @ 100V per channel (depending on model)
Type of amplifier	AB class with direct output without transformer.
Maximum output voltage	105W rms per channel
Frequency response	20Hz - 20KHz +/- 0.1 dB (At 1/3 of maximum power. All channels in operation)
THD+N	<0.05% @ 1KHz (At 1/3 of maximum power. All channels in operation)
Signal to noise ratio	>105 dB 20Hz - 20KHz, A-weighted. (At 1/3 of maximum power. All channels in operation)
Input sensitivity	0.707 VRMS for the specified power
Crosstalk	>80dB @ 10KHz (At 1/3 of maximum power. All channels in operation)
Minimum load impedance	50Ω / 25Ω / 12.5Ω. (200W/400W/800W respectively).
Protection functions	Over-temperature, DC, infrasonic, short circuit, slow start-up, overload. Start-up test.
Input connectors	3-pin removable Euroblock type connector. Screw-on cable terminal
Priority input connector	4-pin removable Euroblock type. Screw-on cable terminal
Priority regenerated output connector	4-pin removable Euroblock type. Screw-on cable terminal
Input impedance	10KΩ (All inputs are balanced)
Priority regenerated output impedance	100Ω (Balanced type)
Power output connector	2-pin removable Euroblock type. Screw-on cable terminal
Indicators	: On/Standby, Priority, Link. Per channel: VU meter, signal, clip, state of load, Protection. Display
Control	Graphic display 128x64p and menu navigation controls. Gain adjustment per channel from front panel or with potentiometer. Expansion bay for ETX Series modules. On/off switch.
DSP	Integrated. Controlled from front panel. Optional remote control with ETX Series modules
Casing	Aluminium. Iron front panel.
Weight	21.5 Kg (for STV-2800)
Dimensions	88 x 483 x 455 mm (height x width x depth). Two 19" rack units for all models.

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STV SERIES

STV-2200	
No. OF CHANNELS	2
OUTPUT PER CHANNEL	200W @ 100V
MINIMUM LOAD PER CHANNEL	50 Ω
CONSUMPTION WITHOUT SIGNAL	0,07 A
CONSUMPTION 1/8 OF SP*	1.6 A
CONSUMPTION 1/3 OF SP*	2.4 A
THERMAL EMISSION 1/8 OF SP*	160 Kcal/h
THERMAL EMISSION 1/3 OF SP*	205 Kcal/h
*SP= SPECIFIED POWER Consumptions calculated with all channels active at 240V power supply.	

STV-4200	
No. OF CHANNELS	4
OUTPUT PER CHANNEL	200W @ 100V
MINIMUM LOAD PER CHANNEL	50 Ω
CONSUMPTION WITHOUT SIGNAL	0,07 A
CONSUMPTION 1/8 OF SP*	3.2 A
CONSUMPTION 1/3 OF SP*	4.9 A
THERMAL EMISSION 1/8 OF SP*	320 Kcal/h
THERMAL EMISSION 1/3 OF SP*	410 Kcal/h
*SP= SPECIFIED POWER Consumptions calculated with all channels active at 240V power supply.	

STV-2400	
No. OF CHANNELS	2
OUTPUT PER CHANNEL	400W @ 100V
MINIMUM LOAD PER CHANNEL	25 Ω
CONSUMPTION WITHOUT SIGNAL	0,07 A
CONSUMPTION 1/8 OF SP*	3.2 A
CONSUMPTION 1/3 OF SP*	4.9 A
THERMAL EMISSION 1/8 OF SP*	320 Kcal/h
THERMAL EMISSION 1/3 OF SP*	410 Kcal/h
*SP= SPECIFIED POWER Consumptions calculated with all channels active at 240V power supply.	

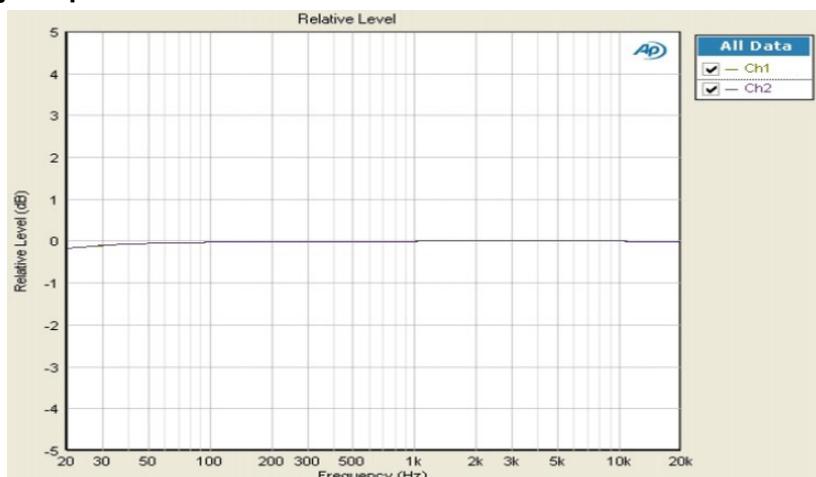
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STV-4400	
No. OF CHANNELS	4
OUTPUT PER CHANNEL	400W @ 100V
MINIMUM LOAD PER CHANNEL	25 Ω
CONSUMPTION WITHOUT SIGNAL	0,07 A
CONSUMPTION 1/8 OF SP*	6.4 A
CONSUMPTION 1/3 OF SP*	9.9 A
THERMAL EMISSION 1/8 OF SP*	640 Kcal/h
THERMAL EMISSION 1/3 OF SP*	820 Kcal/h
*SP= SPECIFIED POWER Consumptions calculated with all channels active at 240V power supply.	

STV-2800	
No. OF CHANNELS	2
OUTPUT PER CHANNEL	800W @ 100V
MINIMUM LOAD PER CHANNEL	12.5 Ω
CONSUMPTION WITHOUT SIGNAL	0,07 A
CONSUMPTION 1/8 OF SP*	6.4 A
CONSUMPTION 1/3 OF SP*	9.9 A
THERMAL EMISSION 1/8 OF SP*	640 Kcal/h
THERMAL EMISSION 1/3 OF SP*	820 Kcal/h
*SP= SPECIFIED POWER Consumptions calculated with all channels active at 240V power supply.	

Frequency Response Curve

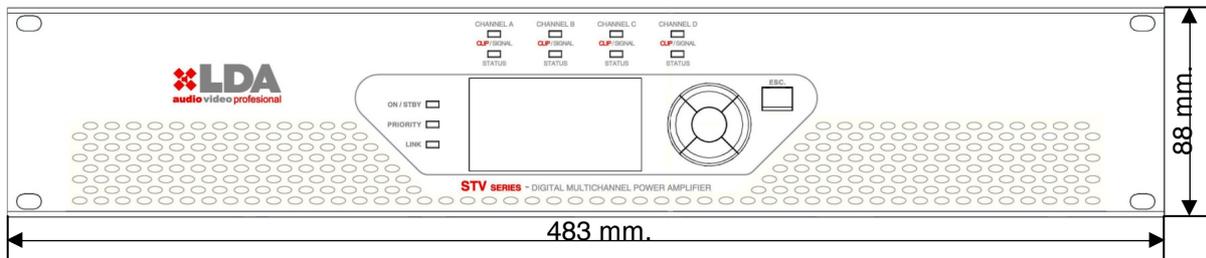


For 1/3 of the maximum specified power.

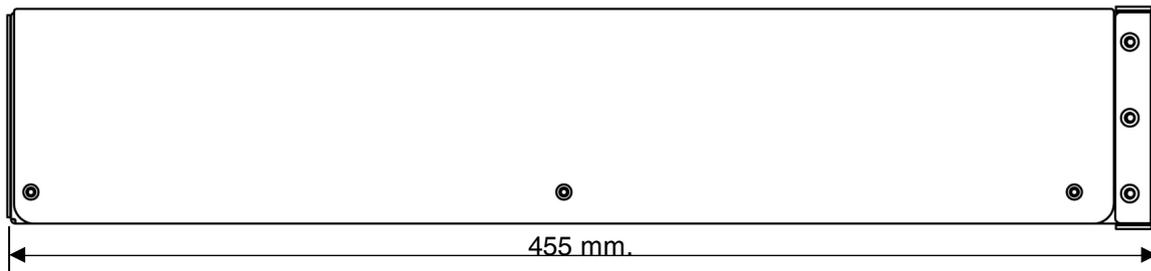
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Mechanical Dimensions:

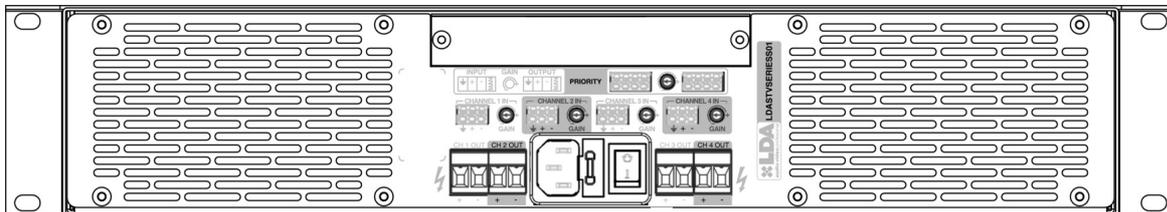
Front view, 4-channel version :



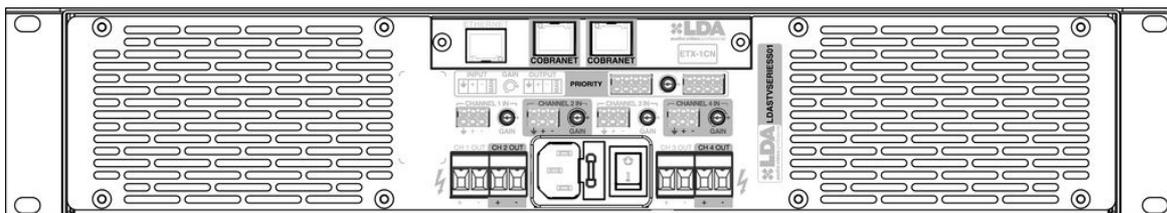
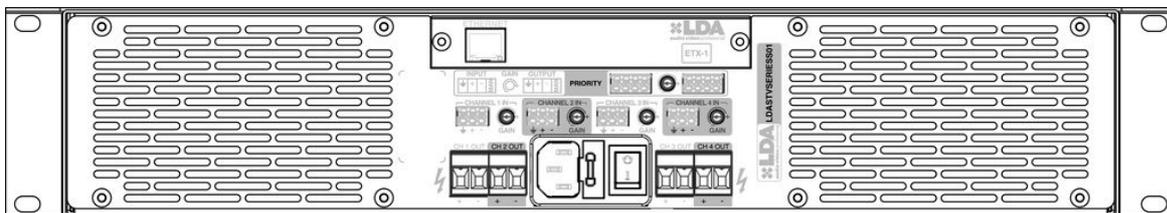
Side view:



Back view 4-channel version:



Back view 4-channel version with ETX units:



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STV SERIES

Specifications for Architects and Engineers

The STV series includes two-channel models of 800, 400 and 200 W per channel and four-channel models of 400 and 200 W per channel. These independent channels will have direct 100V line output without an internal or external transformer to minimize distortion. The frequency response will range between 20Hz and 20 kHz ± 0.1 dB at 1/3 of the power specified for each model. The input sensitivity will be 0.707RMS (0dBm) with impedance-balanced input of 10K Ω . It will have independent inputs per channel and a priority balanced audio input, with regeneration of audio, impedance-balanced output of 100 Ω and control. The priority input will be activated by configurable TTL operation; the regenerated output will be active at a low level. The signal/noise ratio will be higher than 105dB between A-weighted (20Hz-20 kHz).

Solid state, class AB amplification technology will be used, with high resistance power supply. The power supply voltage will be 100V 240V \sim 50Hz/60H, to be configured at the factory.

The amplification channels will have an independent cooling system by means of forced ventilation with variable speed depending on the temperature. The protection functions will be for over-temperature, short circuits, speaker protection against DC, open circuit detection, slow start-up of the power source to avoid high peak currents when starting-up.

All models will have a 128x64p liquid-crystal-display that will allow visualising the parameters for temperature, gain and cause of fault. In addition, it will allow controlling all of the system's features and the optional expansion modules in case they are installed. The front panel will include system-status LED indicators for on/off, standby, priority, link, load state of each channel, VU meter, signal and clip per channel. The integrated control will allow measuring output power and power supply, and these parameters will be shown on the display. The system's monitor can be configured in the energy saving mode. It will also allow for the cyclical display of information regarding the operation and state of the unit. It will have automatic backlight auto-adjust depending on the intensity of the light where the unit is installed.

The input and output connectors will be of the removable Euroblock type, with screw-on cable terminals. Optionally, it will allow installing an ETX-series module by means of a standard bay located on the back, secured with two M3x5mm sunk screws and connected by means of flat 40-wire ribbon cable with anchor and polarity. The system's power supply will consist of a network base with fuse holder and switch, with Schuko-type connection. The power supply cable will be provided, together with all insert connectors for installation of the equipment.

The casing of all versions will be 88mm high, 483mm wide (2 19" rack units), and 455mm deep. The models of the series will be called LDA STV-XXXX, where X will indicate the number of channels and YYY the power per channel.

Warranty 2 years

Product code:

LDASTV2200S01: 2 x 200 @ 100V

LDASTV4200S01: 4 x 200 @ 100V

LDASTV2400S01: 2 x 400 @ 100V

LDASTV4400S01: 4 x 400 @ 100V

LDASTV2800S01: 2 x 800 @ 100V

All versions of this product comply with CE marking requirements.

STV SERIES. ETX MODULES

Description of ETX Series Modules:

LDA's ETX Series expansion modules allow increasing the integration and connectivity features of the STV amplifiers. Both modules are insertable, interchangeable and easy to install in the system, LDA's ETX Series expansion modules allow increasing the integration and connectivity features of the STV amplifiers. Both modules are insertable, interchangeable and easy to install in the system,

ETX-1

Description

The ETX-1 module enables controlling and monitoring the STV Series amplifiers through Ethernet. All of the amplifier's functions that are controlled by means of a front panel menu that can be remotely operated. When an STV Series amplifier is controlled remotely, the local control functions (located on the front panel and on the back) are blocked. If the remote control communication is established correctly, this will be indicated by the "Link" LED on the amplifier's front panel. The ETX-1 module can be configured from the equipment's front panel or remotely.



ETX-1CN

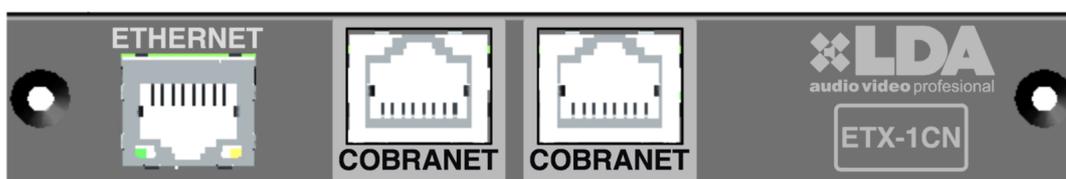
Description

The ETX-1CN module includes all the features of module ETX-1. In addition, it allows adding direct Cobra-Net™ inputs to the STV Series amplifiers.

When an ETX-1CN module is connected to an STV amplifier, the CobraNet™ audio inputs are automatically selected as the inputs for the amplification channels. By means of remote configuration, these audio inputs can be changed to analogical.

The ETX-1CN module has two "COBRANET" inputs, a main one and a reserve. When the first input (located on the left) loses contact with the network, for example because one switch has fallen, the ETX-1CN module will try to connect through the second "COBRANET" input. This is useful to ensure greater safety in case of digital audio network redundancy.

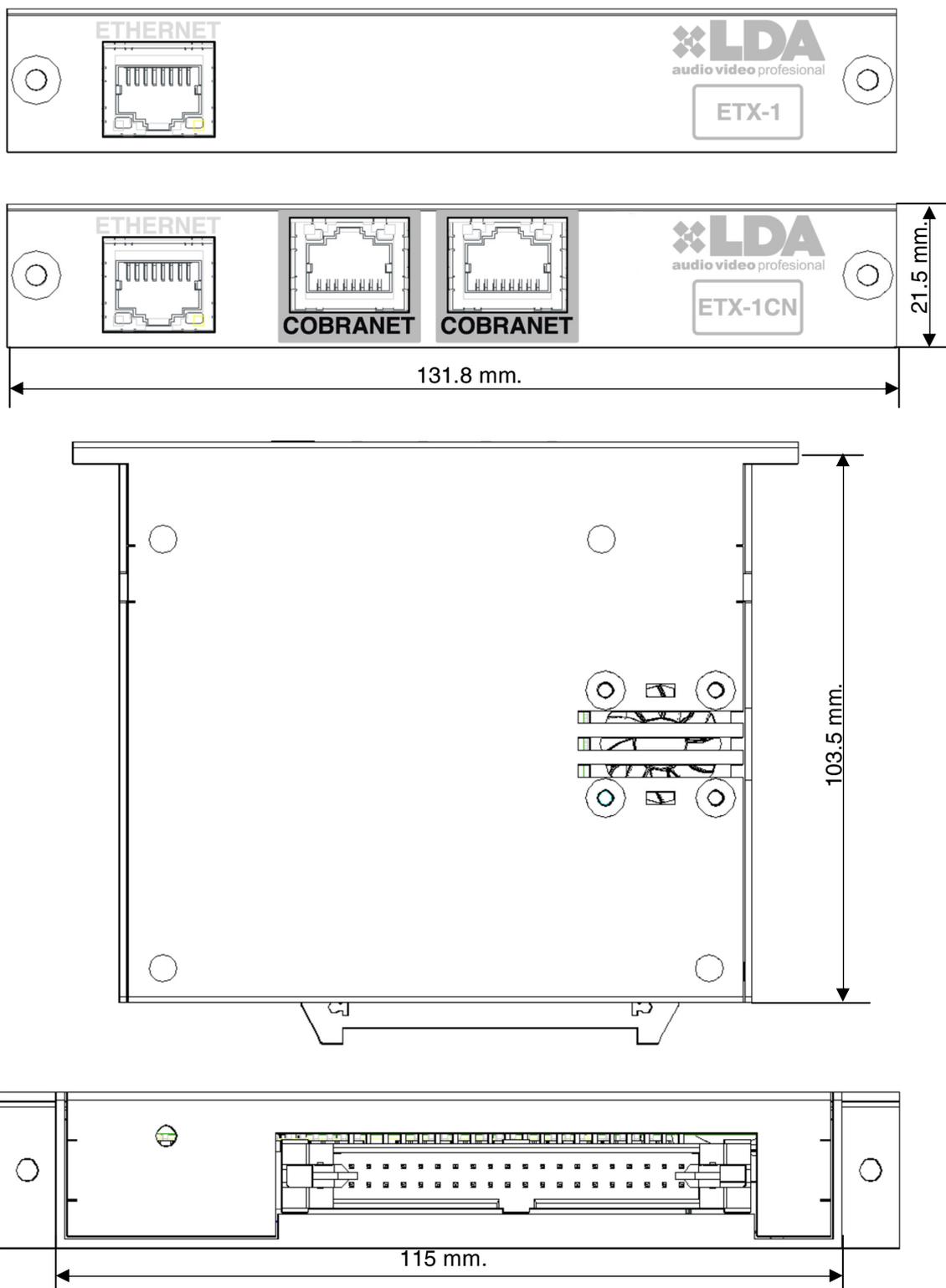
The ETX-1CN module can be configured from the equipment's front panel or remotely.



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Mechanical Dimensions

The mechanical dimensions of both modules are identical. The modules are secured to the amplifier with two screws and are connected by means of a flat ribbon cable connector located in the STV Series amplifier.



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Technical Features

ETX-1	
CONNECTION CONTROL TYPE	Ethernet 10/100Mb
CONNECTOR FOR CONTROL	RJ-45
INTERNAL CONNECTOR	40-wire polarised IDC
DSP CONTROL	Gain
LOAD SUPERVISION	YES
POWER SUPPLY SUPERVISION	YES
REMOTE TURN ON	YES
FRONT PANEL BLOCKING	YES
PRIORITY SOURCE SELECTION	YES
REMOTE UPDATING	YES
PERSONALISED SCREENSAVER	YES
PERSONALISED IDENTIFIER	YES
REMOTE STANDBY	YES
DISSIPATION	Variable forced
DIMENSIONS (height x width x depth)	21.5 x 131.8 x 103.5 mm
WEIGHT	170 gr.
INSTALLATION	2 M3 screws x 5 sunk screws.

The ETX-1CN module has all the features of the ETX1 model, together with the following:

ETX-1CN	
CONNECTION CONTROL TYPE	Ethernet 10/100Mb
CONNECTOR FOR CONTROL	RJ-45
INTERNAL CONNECTOR	40 wire-polarised IDC
DSP CONTROL	Complete
DIGITAL AUDIO CONNECTION	CobraNet™
DIGITAL AUDIO CONNECTOR	2 x RJ-45 (redundant)
COBRANET™ PRIORITY SOURCE	SI
COBRANET™ AUDIO INPUTS	4
DIMENSIONS (height x width x depth)	21.5 x 131.8 x 103.5 mm
WEIGHT	215 gr.
INSTALLATION	2 M3 screws x 5 sunk screws