axxent AX4120TS-D Professional 4 Channel Power Amplifier Instructions

axxent AX4120TS-D Professional 4 Channel Power Amplifier

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Introduction

The professional audio amplifiers of the axxent TS series are optimised for use in fixed installations. The 4-channel model AX4120TS-D complements this series with an output power of 120 W/channel and 240 W mono bridged per pair. In addition to the analogue inputs, this model has a Dante digital input for easy networking. The switching power supply saves weight and increases efficiency and power balance.

Each of the 4 channels offers an independent clip limiter with separate indicators on the front panel. Excellent audio quality throughout the power range is supported in the inputs by special balanced integrated circuits with high common-mode rejection.

In addition to the constant voltage outputs with 70 and 100 V taps, low-impedance outputs are also available.

Galvanic isolation by means of high-quality audio output transformers enables earth-fault monitoring and serves to protect the 100 V lines against accidental contact.

The rated output power is 120 W into 100 V and 4 and 8 ohms per channel. These flexible output configurations make the AX4120TS-D 4-channel amplifier the ideal choice for use in fixed installations. The four amplifier channels can be operated individually or in bridge mode (2×240 W at 8 ohms) for power bundling. The only adjustment elements on the front panel are the input level controls. To protect against unintentional or unauthorised adjustment, the control knobs can be removed and replaced with the supplied blanking plugs.

The connections – inputs: analogue balanced XLR and digital with Dante compatibility. Analogue/digital switching is individually selectable for all four channels. All outputs, low impedance and 70 V/100 V, have 10-pin Phoenix screw terminal connectors. Mains voltage input via IEC connector. The robust housing is made of reinforced, powder-coated sheet steel. CE certification for Europe-wide use.

The most important features

- Output power 4×120 Wrms with all constant voltage output configurations (70/100 V) and with low impedance outputs (4 and 8 ohms). In bridge mode 2×240 Wrms at 8 Ohm.
- Analogue balanced XLR inputs, digital Dante input.
  All four channels switchable analogue/digital.
- Euroblock output connector for all outputs.
- High-quality audio output transformers for galvanic isolation enable earth-fault monitoring and serve to protect against contact with 100 V lines.
- Two-speed fan with automatic control.
- Removable knobs and blanking plugs and rear on-off switches for security against unauthorised change of settings.
- IEC mains socket on the rear of the unit facilitates cabling in the rack.
- Dimensions: 484 x 88 x 387 mm (WxHxD)
- Net weight: 14 kg without enclosed mains cable
- Scope of delivery: amplifier, mains cable, 4 blanking plugs
- European quality product

Technical Data Class AB output stages

Output power 100V (equal for 8 Ohm) Power 1 kHz THD 1%

single-channel operated ……………… 128 W per channel
two channels operated ………………… 124 W per channel
three channels operated ……………… 121 W per channel
All channels operated together ….. 117 W per channel
Bridge mode 1-2 (min.16 Ohm) ……. 234 W bridged
Bridge mode 3-4 (min.16 Ohm) ….. 234 W bridged

Frequency response +0/-2dB
20 Hz 20 kHz

Distortion factor at -1 dB below nominal output power
<0,2%

Intermodulation distortion 60Hz and 7kHz at 4:1, -1dB below nominal output power
<0,4%

Input sensitivity analogue input at nominal power
0dBu (775 mV)

Voltage Gain, 100V
150x(43,8dB)

Voltage Gain, 8Ohm
43x(32,7dB)

Input impedance
10 kOhm unbalanced
20 kOhm balanced

Common mode rejection (1kHz)
>80dB

Signal-to-noise ratio
>90dB

Signal to noise ratio, „A" weighted
>100dB

Crosstalk
>60dB

Input sensitivity Dante input at nominal power
0dBu (775 mV)

Switch to sensitivity ON
-9dBu(270mV)

Voltage gain 100V
155x(43,8 dB)

(Sensitivity -9dB)
422x(52,5 dB)

Voltage gain 8 Ohm
44x(32,8dB)

(Sensitivity -9dB)
121x(41,7dB)

Sampling rate
48kHz

DA converter
24bit

Input connector, analogue
3-pin XLR female, balanced

Input connector, digital
RJ45 socket, Dante conform

Output connector
10-pole Phoenix terminal connector
4 Ohm, 70 V and 100 V constant voltage

Cooling
2 speed fan

Protective measures
Overload, short circuit, thermal

Mains voltage
230V AC / 50 Hz

Dimensions
483x88x387 mm (WxHxD)

Weight
14 kg without packaging and power connection cable (enclosed)

OPERATING ELEMENTS BACKSIDE

1. Mains switch
2. Mains plug connection
3. Analogue / Dante switch
4. Switch for digital sensitivity 0dB / -9dB
5. Ethernet Dante connection
6. Dante reset button
7. 4x analogue XLR input
8. 2x Phoenix 10-pole plug output

OPERATING ELEMENTS FRONTSIDE

1. Volume control (each channel)
2. Operating display (each channel) Signal display (each channel) Limit value display (each channel)
3. 2x bridge display (1+2, 3+4 channel) 1x Protect indicator

Performance characteristics

(measured with 4-channel operation)

Duty cycle	Power draw	Current draw	Volt-Ampere	Power factor
IDLE	40W	0.35A	82	0.5
1/8	308W	2a	484	0.64
1/3	482W	3.1A	737	0.65
1/1	760W	4.7A	1116	0.67

Tender text

Four-channel audio power amplifier with constant voltage outputs (70/100 V) and additional low-impedance outputs; rated output power 4×120 W (RMS) into 70/100 volt and 8 ohms, bridged per amplifier channel pair 234 W into 16 ohms; energy-saving switch-mode power supply, inputs 3-pole XLR connector analogue and RJ45 connector for Dante digital input signal. Outputs: 10-pin Euroblock (Phoenix) screw terminal connections. Two-speed fan, automatically controlled. LED indicators for operation, signal, limit and bridge operation as well as protection function. Adjusters at the front for gain (volume), which can be covered to prevent accidental misuse. Blanking plugs included in delivery. Mains switch on rear of unit; detachable mains cable, IEC plug. Dimensions 483×88 (2U) x 387 mm (WxHxD). Net weight 14 kg. The amplifier shall be an axxent model AX4120TS-D.
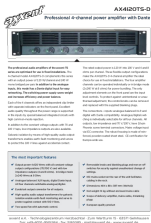
CUSTOMERS SUPPORT

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