

A100Q

4 CHANNEL FIXED INSTALL AMPLIFIER

DATASHEET Rev. 1.1 | 27-9-2022 | E&OE



AMINA
IMMERSIVE INVISIBLE SOUND

Product Description

The Amina A100Q is a versatile power amplifier with four inputs, providing four amplified speaker channels and two line outputs. The A100Q boasts configurable signal routing and digital signal processing (DSP), which can be programmed to protect all models of Amina invisible loudspeakers and subwoofers, and is equally suited for use with other speakers. Each speaker channel provides 100W of amplification @ 4 ohms, and all channels are contained within the slim footprint of a 1u rack case. DSP capabilities allow not only for increased acoustic performance, but also offer superior loudspeaker protection through digital limiting, filtering and gain control. As well as digital speaker protection, the A100Q also includes an I/O matrix (distributing/mixing the 4 line level inputs to the powered and line level outputs), loudspeaker equalisation (curves) and crossover functionality.

Features:

- ~ 4x input channels (analog RCA/phono connection)
- ~ 4 x amplified speaker channels
- ~ 2 x line-level RCA/phono output channels
- ~ Multi-voltage: 110-120VAC / 220-240VAC
- ~ Fixed configuration with no end user controls
- ~ Configurable I/O matrix (fixed routing only)
- ~ Configurable DSP, inc. speaker protection
- ~ 172 MHz DSP core; 3584 instructions per sample @ 48 kHz
- ~ Audio-sensing auto-wake from standby
- ~ 12V trigger wake from standby
- ~ 1U rackmount or freestanding installation
- ~ Thermal protection circuit
- ~ Over / under voltage protection
- ~ Over current protection

Ordering the A100Q / Initial Configuration

Due to the flexibility and limitless possibilities provided by the DSP engine, and in order to correctly configure the protection profiles for each speaker type, Amina requires specific information to be provided when purchasing the A100Q. In all cases a configuration questionnaire must be completed, which will serve as a master record for each amplifier profile. The questionnaire can be downloaded from the link below: Please save the completed form for your own records and email a copy to adrian@amina.co.uk.

<https://aminasound.link/A100QConfigForm>

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Example Applications

The A100Q includes four separate power amplifiers and it is possible to change the channel setup during the initial configuration. Some typical system configurations may include;

- ~ Stereo systems in two rooms, driven by one A100Q.
- ~ A four speaker stereo zone.
- ~ A stereo system for larger rooms with bass reinforcement.
- ~ High-end two-way panel system, bi-amplified.
- ~ A four subwoofer system. (This will probably be a home cinema system where the '.2' subwoofer channels route system bass frequencies and LFE channel to four subwoofers via an A100Q.)

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Specifications	A100Q
Number of channels	4
Power Output RMS	100W @ 4Ω / 67W @ 6Ω / 50W@ 8Ω
Total Harmonic Distortion (THD)	0.05% @ 1W(4Ω) / 0.3% @ 100W(4Ω)
Power Supply	220-240VAC~50Hz / 110-120VAC~60Hz 500W
AC Fuse	T2.5AL/250V / T5AL/250V
Dimensions	483mm (W) x 44.5mm (H) x 237mm (D)
Product Weight	3.63Kg (8.0lbs)
Operating Temperature Range	0°-35°C (32°-95°F)
Operating Humidity Range	RH 15% - 70%
Channel Separation	67dB
12V Trigger	5V~15V at 1mA
Input Sensitivity	780mV
Input Impedance	37kΩ
Nominal Gain	27dB
Over / under voltage protection	Yes
Over current protection	Yes
Over Temperature Protection	Yes

Warranty

The A100Q is designed to operate reliably for many years. Correctly installed, Amina warrants the A100Q against defective materials and workmanship for a period of one year.

Declaration of conformity

Under our responsibility, the A100Q is in conformity with the following EC directives and harmonised standards:



2014/53/EU Radio equipment
2014/30/EU E.M. compatibility
2014/35/EU Low voltage 2012/19/
EU WEEE
2011/65/EU RoHS
2009/125/EC Ecodesign

EN55032:2015
EN61000-3-2
EN61000-3-3
EN55020:2007/A11:2011
IEC61000-4-2:2008
IEC61000-4-4:2012
EN60065
EN50564:2011

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