



# EVOLUTION

## PC 3.3 / PC 5.3

### Operating instructions



*Handcrafted in Germany*

## Welcome!

We are delighted that you have chosen an audiophile masterpiece from AVM and thank you for your trust. With the EVOLUTION PC 3.3/5.3, you have purchased a high-end component with outstanding sound quality and a wide range of functions. In the following, we would like to give you a comprehensive explanation of how to use your EVOLUTION PC 3.3/5.3 and therefore ask you to take a little time to study these instructions in detail.

The Power Conditioners 3.3 and 5.3 ensure an improved, clean mains supply in your chain in various ways. By means of DC and HF filtering as well as overcurrent and overvoltage protection, you can take your existing system to a new sonic level.

And the most important thing at the end: We at AVM and our specialist dealers are always happy to help you. If you have any questions, requests or suggestions, please contact us at any time. And if you are satisfied with us: Feel free to recommend us to others.



Udo Besser – AVM Owner & Managing Director



## Meaning of warning symbols



The general danger symbol in conjunction with the warning words **CAUTION**, **WARNING** and **DANGER** warns of the risk of serious injury. Follow all the instructions below to avoid injury or death.



The lightning symbol in conjunction with the warning word **DANGER** warns of a life-threatening electrical voltage

## Safety instructions

### Opening the device



**CAUTION:** Do not open the housing or other covers at any time. All maintenance work must be carried out by qualified customer service personnel.

### Proper disconnection from the mains



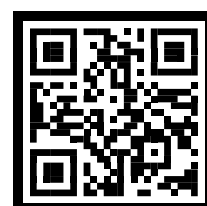
**DANGER:** To completely disconnect your appliance from the mains, use the mains switch on the rear panel and then disconnect the appliance from the mains by pulling the mains plug out of the socket

### Operation during thunderstorms



**DANGER:** Overvoltages caused by lightning strikes  
Power surges in the mains - caused by lightning - can damage or even destroy the appliance.  
Pull the mains plug out of the socket if a thunderstorm is approaching. Switching off with the mains switch is not sufficient, as the overvoltages themselves "jump" over the unclosed contacts.

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## 1. Start-up

### 1.1. Scope of delivery

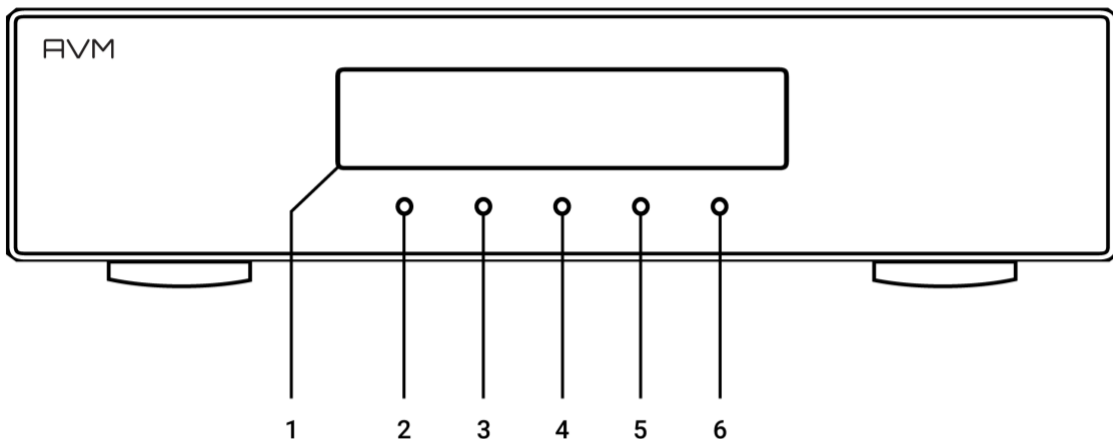
- 1.1.1. EVOLUTION PC 3.3/5.3 Power Conditioner
- 1.1.2. Power cable (C19)
- 1.1.3. Gloves
- 1.1.4. Hazard warnings and getting started guide

**NOTE:** Please check the device and accessories for completeness and transport damage after unpacking. If the original packaging has already been opened, please contact your specialist dealer. A specialist dealer will often prepare your new appliance for use before delivery.

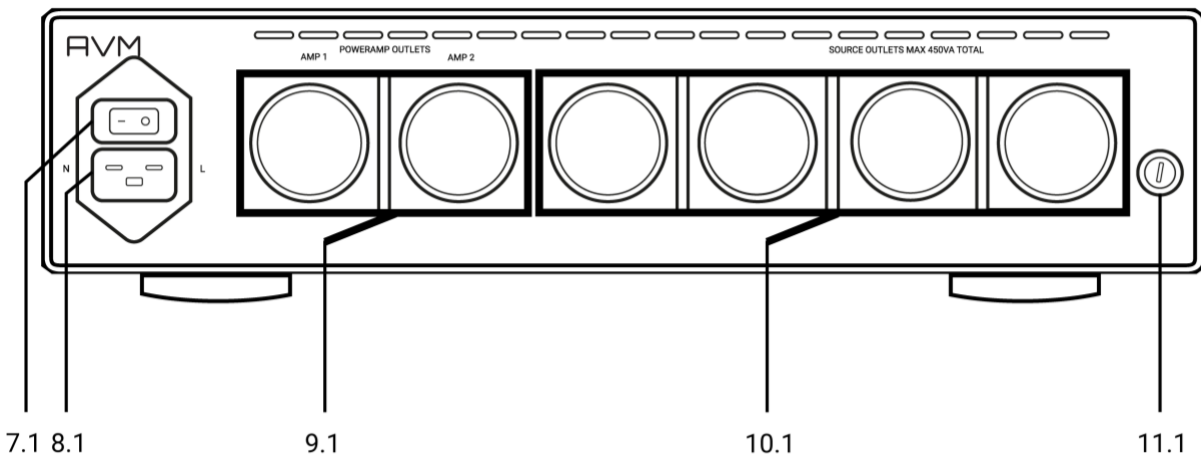
### 1.2. Overview

In these instructions, the names of the individual elements are followed by numbers that refer to the following drawings.

#### 1.2.1. PC 3.3: Front- and Backside



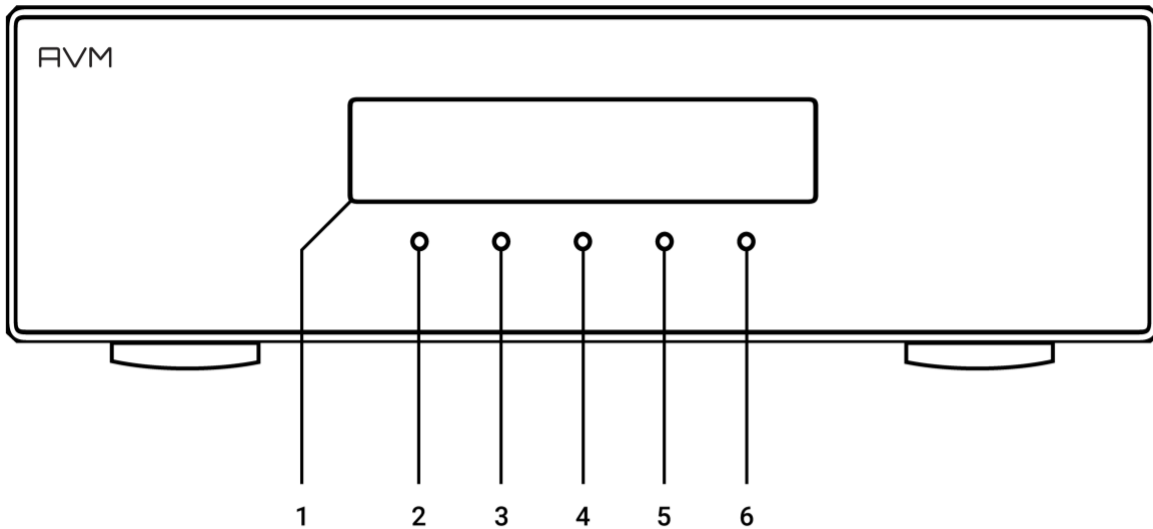
- |   |                              |   |                                |
|---|------------------------------|---|--------------------------------|
| 1 | Display with Standby-LED     | 4 | Test-Button for intern Speaker |
| 2 | Power-Button                 | 5 | Test-Button for HF- Filtering  |
| 3 | Test-Button for DC-Filterung | 6 | Display ON/OFF                 |



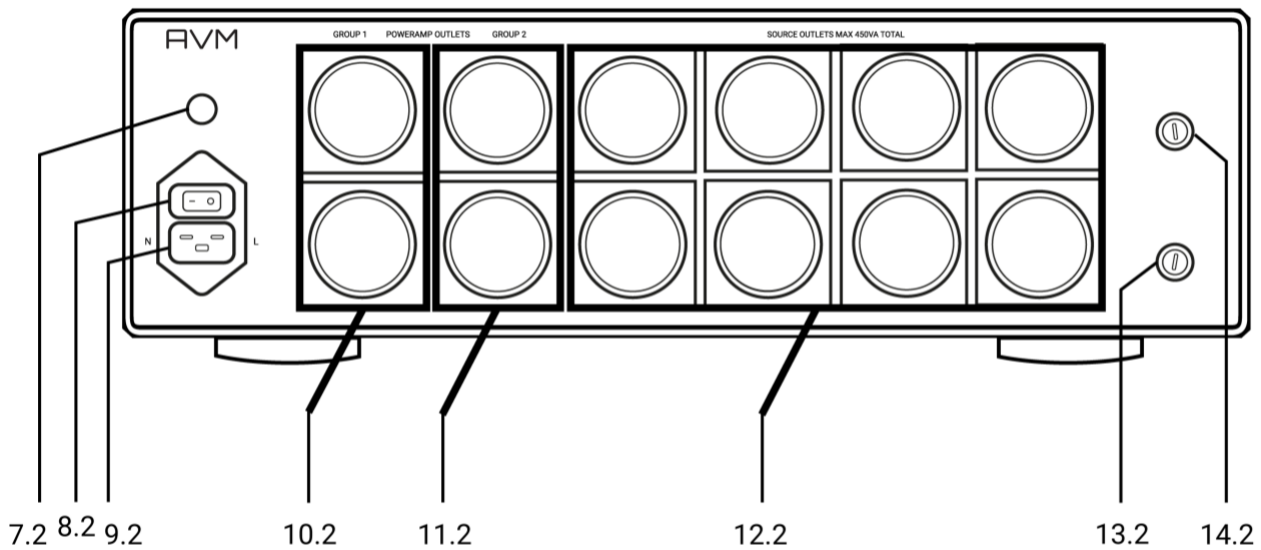
- |     |                               |      |                             |
|-----|-------------------------------|------|-----------------------------|
| 7.1 | Mains switch On/Off           | 10.1 | Sockets for other consumers |
| 8.1 | IEC socket                    | 11.1 | Fuse holder                 |
| 9.1 | Sockets for power electronics |      |                             |



## 1.2.2. PC 5.3: Front- and Backside



- |   |                               |   |                                  |
|---|-------------------------------|---|----------------------------------|
| 1 | Display with Standby-LED      | 4 | Test button for internal speaker |
| 2 | Power-Button                  | 5 | Test button for HF filtering     |
| 3 | Test-Button for DC- filtering | 6 | Display ON/OFF                   |



- |      |                                   |      |                                   |
|------|-----------------------------------|------|-----------------------------------|
| 7.2  | 15V turntable power supply        | 11.2 | Sockets for power electronics (2) |
| 8.2  | Mains switch On/Off               | 12.2 | Sockets for other consumers       |
| 9.2  | IEC socket                        | 13.2 | Fuse holder 1                     |
| 10.2 | Sockets for power electronics (1) | 14.2 | Fuse holder 2                     |

## 1.2.3. Underside of the device (PC 3.3 and PC 5.3): Overcurrent and residual current protection

There is an RCD circuit breaker (also known as an RCD) on the underside of the appliance, which interrupts the mains N and L in the event of overcurrent (>16A) and residual currents above 30mA. The RCD is resettable and can be tested from the underside of the appliance (test button). The technical data of the RCD can be found in chapter **Error! Reference source not found..**

## 1.3. Mains connection

Connect the appliance's IEC connection (PC 3.3: 7.1, PC 5.3: 9.2) to a Schuko socket using the mains cable supplied. Pay attention to the phase labeled on the device.

## 1.4. Connection of electrical devices

### 1.4.1. Power electronics on the PC 3.3

To connect your power electronics (e.g. 2x mono power amplifiers, 1x stereo power amplifier, ...) to the PC 3.3, use the connections marked red with "AMP 1" and "AMP 2" (9.1). A total of 2 connections are available.

### 1.4.2. Source devices on the PC 3.3

To connect your source devices or other electronics (preamplifier, media player, etc.), use the 4 connections marked "Source Outlets" in yellow. Please note that the total power consumption must not exceed 450 watts. A total of 4 connections are available.

### 1.4.3. Power electronics on the PC 5.3

To connect your power electronics (e.g. 4x mono power amplifiers, 2x stereo power amplifiers, ...) to the PC 5.3, use the connections marked in red with "GROUP 1" and "GROUP 2" (10.2 + 11.2). A total of 4 connections are available, each grouped in groups of two.

### 1.4.4. Source devices on the PC 5.3

To connect your source devices or other electronics (preamplifier, media player, etc.), use the 8 connections marked "Source Outlets" in yellow. Please note that the total power consumption per group of 4 must not exceed 450 watts.

## 1.5. Connecting a record player (PC 5.3 only)

In addition to the numerous Schuko sockets, the PC 5.3 also has its own filtered switching power supply for record players, which is completely separated from PE at the output. The output voltage is 15V at max. 4A.

## 2. Operation of the device

### 2.1. First switch-on and self-test

Once the PC 3.3 / 5.3 is supplied with power via the mains socket and all consumers are connected, the mains switch (PC3.3: 7.1, PC5.3: 8.2) can be switched on. After a short self-test, the device switches to standby mode. In this state, the LED on the left-hand side of the display lights up.

### 2.2. Switching the device on and off

#### 2.2.1. Switching on the device

To activate the device, press the "POWER" button (2) on the left-hand side below the display or use an RC 3 / RC 5 AVM infrared remote control.

Before the PC 3.3 & PC 5.3 is actually switched on, the built-in processor checks whether the mains connection is OK.

If the PE is missing or the N and L are twisted, the device will not switch on but will indicate the error status on the display.

#### If everything is in order:

If everything is OK, the power conditioner switches on and is ready for operation. The LED on the left-hand side of the display goes out.

The display shows the mains voltage and frequency, incoming and outgoing DC offset and incoming and outgoing high frequency (HF) interference.

In this state, you can operate all devices in your hi-fi setup that are connected to the power conditioner.

#### Possible error messages:

##### **"MAINS PHASE REVERTED"/ "PULL MAINS PLUG AND PLUG-IN INVERSELY"**

→ N and L are reversed at the mains connection.

This can only happen with German-style sockets (where the plugs can be inserted in any direction (Schuko)).

Follow the instructions on the display, turn the plug of the power cable on the side of the domestic socket and switch the appliance back on.

##### **"FAILURE: PE MISSING"**

→ PE (protective earth) is missing.

In this case, your socket or power cable is faulty. Check the power cable (replace it if necessary) and have your socket checked by a specialist company.



### 2.2.2. Sequential switching on and off

As already explained in chapter 1.4, the sockets are divided into 3 groups:

- 1 group of sockets for sources such as preamplifiers, CD players and other low-power devices. This entire group is protected by a 2A fuse (accessible at the rear).
- 1 "AMP1" socket (PC5.3 has two "GROUP1" sockets) for power amplifiers/active loudspeakers on the right channel, which have a higher current consumption.
- 1 "AMP2" socket (PC5.3 has two "GROUP2" sockets) for power amplifiers/active loudspeakers on the left channel, which have a higher current consumption.

When the device is switched on (and off), these groups are activated (or deactivated) one after the other with an interval of 1 second. This is to ensure that the mains fuse is not overloaded by too many electrical consumers being switched on at the same time.

#### Switch-on sequence:

1. SOURCE-OUTLET
2. AMP2
3. AMP1

### 2.2.3. Switching off the device

To switch off the power conditioner, you can use the "POWER" button (2) or the RC 3/ RC 5 remote control. All socket outlets are then disconnected from the mains. Switching off also takes place sequentially as explained in chapter **Error! Reference source not found..**

Switching off via the infrared remote control is generally delayed in order to give other AVM devices enough time to switch off properly (for more information, see chapter **Error! Reference source not found.**).

## 2.3. Filter

The PC 3.3/ 5.3 have both DC filtering and HF filtering. The filtering is described in more detail below.

### 2.3.1. DC-Filter

In the PC 3.3 and PC 5.3, the neutral mains cable is connected to the externally connected devices via a capacitance of 50,000 $\mu$ F. This blocks any DC voltage from the mains up to 2.4 V. The capacitors are protected against overvoltage by two rectifiers that can withstand up to 35 amps.

#### DC test button

Press the DC test button (3) to bypass the DC filter on all mains sockets. If there is a strong direct current at the mains input of the device, you will hear the mains transformers of the connected devices (e.g. power amplifiers with large transformers) humming. When you release the button, the hum disappears again thanks to the built-in DC filter.

### 2.3.2. HF-Filter

Each individual socket of the PC 3.3 & PC 5.3 is equipped with a differential choke and filter capacitors between N and L as well as between earth and N / earth and L. This filters common mode and unbalanced RF interference. This filters common mode and unbalanced RF interference.

#### HF test button

Pressing the HF test button (5) bypasses the interference filter on the left mains output (with PC5.3: only on the lower output). This allows you to compare the sound of a connected source with and without HF filtering.

### 2.3.3. Acoustic function test

If you press the "MONITOR" button (4), the built-in loudspeaker gives you an impression of the incoming RF interference.

By pressing it a second time, the loudspeaker outputs the filtered, outgoing RF interference. It is easy to hear that the interference is drastically reduced.

## 2.4. Remote control functions (RC 3/ RC 5)

You can switch the power conditioner on and off by pressing the ON and OFF buttons on the AVM RC3 /RC5 IR remote control.

Before switching to standby mode, the display shows a 10-second countdown and allows you to cancel the action by pressing "ON" on the remote control again.

**NOTE:** The IR function can be activated/deactivated by pressing and holding the button in the middle below the display and then switching on the power supply (switch on the back).

The display shows the current setting:

- IR ON: "ACTIVE"
- IR OFF: "PASSIVE"

## 2.5. Display

Various information and measured values can be read on the display (1). These are described in more detail below.

### 2.5.1. Input voltage and mains frequency

The input voltage and mains frequency are shown on the left-hand side of the display (1).

### 2.5.2. DC-filtering IN/ OUT

To the left of the input voltage there are two bars which show the DC component in the input and the DC component in the output.

### 2.5.3. Activity display

The activity of the power conditioner (i.e. the activity of the HF filters and DC suppressor) is shown in the center of the OLED display as a percentage. The value depends on the quality of the incoming mains voltage. The lower the "fill level" of the display, the better your mains supply. Nevertheless, the quality of the power conditioner's outputs remains consistently good. The percentage display is the sum of the DC filtering

### 2.5.4. HF-filtering IN/OUT:

To the left of the activity display there are two bars that show the RF component in the input and the RF component in the output.

### 2.5.5. Switching the display on/off:

To deactivate the display, press the "DIS OFF" button (6) on the right-hand side below the display  
To reactivate the display, press the "DIS ON" button (6) on the right-hand side below the display

### 3. Appendix

#### 3.1. Care of the housing

The surface and pressure of the housing and the display screen are largely scratch-resistant. This can be cleaned with mild soapy water or a glass cleaner and a soft dust cloth.

**ATTENTION:** Never allow liquid to enter the inside of the housing when cleaning. For safety reasons, the mains cable should also be disconnected before wiping with a damp cloth. Do not use any solvents or abrasive cleaners that could damage the surface or printing of the housing

#### 3.2. Troubleshooting

Alleged defects can often be traced back to operating errors, sometimes other components connected to the appliance are also responsible for a malfunction. Before you contact your specialist dealer or us about a defect, please check the following list to see if you can rectify the malfunction yourself.

1. The device does not start but displays an error message:
  - a. Is the phase of the mains cable connected correctly?
  - b. Is the protective conductor connected to the domestic socket?
2. The devices connected to the socket group for source devices are not receiving mains voltage
  - a. One or both (PC5.3) fuses have tripped.
    - i. Switch off the PowerConditioner and disconnect the mains plug.
    - ii. Now unscrew the protective caps of the fuses on the back of the appliance (PC3.3: 11.1, PC5.3: 13.2, 14.2). Use a slotted screwdriver with a wide blade. Use it to press the protective cap slightly inwards and unlock the protective cap by turning it anticlockwise.
    - iii. Now replace the fuse(s) with fuses of the same type (2A slow-blow, more information in chapter 4).
    - iv. Now refit the protective cap(s).

## 3.3. Warranty provisions

If, contrary to expectations, a fault occurs that you or your specialist dealer cannot rectify, we will repair your device free of charge for up to two years after the date of purchase. The warranty covers material and labor, any transport costs incurred are borne by the owner from six months after the date of purchase. After the warranty has expired, we will charge an estimate of €120. If a repair is possible, this amount will be deducted from the total cost of the repair.

Regardless of the country in which the device was purchased, German law applies to warranty claims and warranty processing. Should one of the following provisions be legally invalid, it shall be replaced by a provision in conformity with the law.

### The prerequisites for your warranty claim are:

1. The device must have been purchased from a specialist dealer authorized by AVM. Devices from other sources will not be repaired (not even for a fee).
2. Warranty registration takes place via our website: [www.avm.audio](http://www.avm.audio).
3. The fault must not have been caused by improper handling or intervention in the device
4. In the event of repair, the device must be sent to us in its original packaging. If this is not the case, we are entitled to refuse acceptance. In any case, we accept no responsibility for transport damage.

If you no longer have the original packaging to hand, please contact your specialist dealer. We can also provide you with packaging directly on request. However, we have to charge a contribution towards expenses of 70 EURO for this.

5. The returned device must be accompanied by a brief description of the fault, including a process number (RMA). Please print out our WORK FORM for this purpose. This can be found at [www.avm.audio](http://www.avm.audio) under SERVICE (<https://avm.audio/de/werksservice/>).
6. In cases of doubt, we reserve the right to request a copy of the purchase invoice. We reserve the right to charge a processing fee in the event of unauthorized returns or if there is no damage to the device.

**NOTE:** If you are not shipping your device from Germany, please ensure that you have the correct export documents. Unfortunately, we cannot accept any costs incurred due to improper export, failure to declare or customs clearance.



## 4. Technical data

### General

Supply voltage .....	210 – 260 V, 50 / 60 Hz
Power consumption (in operation) .....	< 7W
Power consumption (standby) .....	< 0.3W
Max. Output power (total) .....	3680 W
Max. Output current (Source Out) PC 3.3 .....	2 A (Sum of all outputs)
Fuse PC 3.3 (rear of appliance) .....	2 A T (Slow-blow)
Max. Output current (Source Out) PC 5.3 .....	2 x 2 A (Sum of all outputs)
Fuse PC 5.3 (rear of appliance) .....	2x 2 A T (Slow-blow)
Max. Output current (POWERAMP Out) PC 3.3 .....	16 A (Sum of all outputs)
Max. Output current (POWERAMP Out) PC 5.3 .....	16 A (Sum of all outputs)
Warranty period: .....	<b>2 years + 2 years for online registration</b>
.....	*Warranty periods may vary in the individual sales countries.

**Note:** The total output current (sum of SOURCE and POWERAMP outputs) is limited to 16 A

### Turntable power supply

Output voltage .....	15 V DC +/- 2%
Maximum output current .....	4 A DC

### Electrical safety

The internal overvoltage protection can withstand 5 kA for 8 pulses of 20µs duration without damage. The RCD triggers within 30ms as soon as the fault current exceeds 30 mA. Overcurrent protection characteristic corresponds to specification "C".

The RDC and overcurrent protection can be reset using a lever on the underside of the device. The switching capacity of the RCD and the overcurrent protection is 4.5 kA

### Regular testing of the RCD

The RCD has a test button on the underside of the device. We recommend testing this every month. To carry out the test, connect the appliance to the mains, wait until it switches to standby mode and then press the test button on the underside. The RCD must be triggered. Then press the lever on the underside to the right and the appliance will restart.

**ATTENTION:** If the RCD is not triggered when the test button is pressed, it does not protect the appliance and the operator from residual currents. In this case, disconnect the mains plug immediately and contact your specialist dealer.

The device is intended for non-commercial users.

## Declaration of conformity

AVM Audio Video Manufaktur GmbH confirms that PC 3.3 and PC 5.3, to which these operating instructions belong, comply with EU Directives 2014/35/EU, 2014/30/EU, 2009/125/EC and 2015/863/EU valid at the time of compilation, as evidenced by the



confirmed by the labeling. The necessary tests were carried out with positive results. Der vollständige Text der jeweiligen EU-Konformitätserklärung ist unter der folgenden Internetadresse verfügbar:

AVM EVOLUTION PC 3.3:

[https://avm.audio/wp-content/uploads/Declaration-of-Conformity\\_PC3-3.pdf](https://avm.audio/wp-content/uploads/Declaration-of-Conformity_PC3-3.pdf)

AVM EVOLUTION PC 5.3:

[https://avm.audio/wp-content/uploads/Declaration-of-Conformity\\_PC5-3.pdf](https://avm.audio/wp-content/uploads/Declaration-of-Conformity_PC5-3.pdf)

We reserve the right to make changes to technical data and equipment.

*Version: 28. Mai. 2024*