

BPC5

Balanced Power Conditioner

Available as EU, UK, US and AUS version

BPC5 In Brief

Typically used for one amplifier up to 800W and digital/analogue source devices

Features

- 4 power outlets & 2 isolated power zones
- 5A max. rated power output both zones combined
- 1x 200VA, 1x 800VA power zones
- Output zones allow you to isolate devices with switch mode PSUs from devices with linear PSUs for maximum performance
- Isolate modern digital sources from analogue sources like phono preamps or turntables for least amount of interference
- Cleaner power, more dynamics and larger sound stages for your amplifiers
- Surge protection and DC blocker more than 2V
- Over voltage and under voltage protection
- Overload protection
- Rigorously tested to comply with highest industry safety standards

Toroidal Transformer

- Super-silent, low noise, balanced isolating power transformer
- 1200VA / 5A combined peak power
- Excellent RFI attenuation of more than 57dB

Mechanical construction

- Superb high-end build quality
- Massive aluminium frontplate and heavy steel case protect against interference

Technical data and price changes reserved.



Design Background

Not only typical main components like amplifiers, DACs or sources have an impact on sound quality, also the supplied power for each device is a very important puzzle piece to create a high end audio setup. It significantly contributes to the sonic quality of every audio product.

In order to offer the possibility of improving sound quality, we designed our BPC (Balanced Power Conditioner) series to take your listening experience to the next level.

General Description

Our BPCs are equipped with multiple output zones. Each zone is capable to deliver a certain output power, which may not be exceeded.

The BPC5 has a maximum output of 5A split into a zone of 800 watts and one of 200 watts. Typical use of the BPC5 is powering sources like a phono preamplifier, a preamplifier, a CD player etc., but also power amplifiers with up to 800 watts of max. power consumption.

The biggest advantage of multiple zones is avoiding of differential mode cross contamination between connected electronics. We strongly recommend connecting devices with switch mode power supplies in one zone and electronics with linear power supplies in the second one.

If the number of power sockets is not sufficient, a power strip can be connected as long as you don't exceed the maximum output power of the zone.

The use of a BPC results in a larger soundstage, clearer bass contours and a better separation of instruments.

Technical data and price changes reserved.

Toroidal transformer

The key to all toroidal transformer advantages is its efficiency and the key of efficiency is the transformers core. The core is a continuous strip of grain oriented silicon steel, wound as a clock spring under tension. There is no air gap, as we know from standard EI transformer, resulting in a stacking factor of 95% of its weight. Typical efficiency figures for toroidal transformer are 90% which means that 90% of the input power is transformed into output power and just 10% are converted into waste like heat, electromagnetic radiation and mechanical vibration. Toroidal transformers therefore radiate about one tenth of the magnetic field of EI transformers. Due to the Common Mode Rejection (CMR) we were also able to eliminate noise and get an even cleaner power.



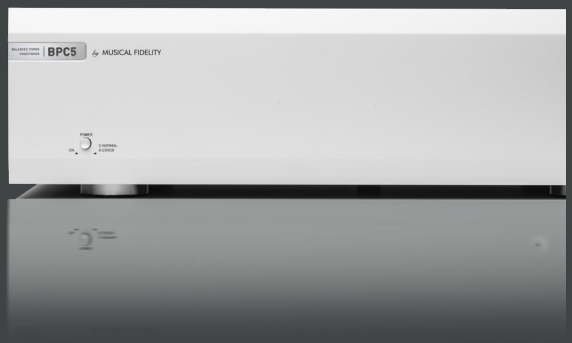


Surge Protection

Musical Fidelity BPC power conditioners protect connected equipment through their innovative series mode surge suppression that also pays attention to keep the power clean. Most surge suppression circuits are shunt-mode. Excessive voltage surges are „shunted“ to ground, which raises the ground voltage and may contamine audio and video signals. Our design absorbs surges more than 2V above peak line voltage, so ground is not affected.

Overload Protection & Input Voltage Detection

When the device detects an overload, the „No-Fuse-Breaker“ will turn to protection mode. If you need to reset the device, just press the „No-Fuse-Breaker“ and check your system to be sure that the device is not overloaded. All BPCs are equipped with an Under Voltage (UVP) and Over Voltage (OVP) protection. The LEDs on the front panel show the current working status. Green means, that the device is in normal working mode. If the LED is red, check if your input voltage is correct.



BALANCED POWER CONDITIONER

ELECTRICAL SAFETY & EMC TESTING

The entire BPC family was rigorously tested to ensure it complies with highest industry standards for electrical safety and electromagnetic interference mitigation. Tested by an accredited institute, adhering to strict international guidelines, no corners have been cut to guarantee performance and reliability.

Test Institute
Institute for Testing and Certification, a.s., Testing Laboratory No. 1004.3
Sokolovska 573
686 01 Uherske Hradiste
Czech Republic

Test Report No: 414105221AE1, 414105255AL1

They are therefore in conformity with relevant union harmonisation legislation directives:

- 2014/35/EU
- 2014/30/EU

The electrical safety protocols test the device's insulation, grounding, and fault protection mechanisms. They ensure that Musical Fidelity Balanced Power Conditioners operate within safe parameters, keep their power output stable and reliable, reducing the risk of electrical hazards to an absolute minimum. Exhaustive electromagnetic interference tests gauge the effective shielding against unwanted interference from external sources, guaranteeing pristine audio quality without any disruptive artifacts. Musical Fidelity Balanced Power Conditioners successfully meet and surpass all criteria, providing you with the peace of mind that your valuable HiFi equipment is in the best possible hands.

As always we have a strong commitment to transparency and quality. We want that your HiFi system is in the care of a device that has been extensively and independently validated by a reputable accredited test institute. This dedication to quality ensures that you'll enjoy the highest standard of sound performance, free from the compromises often seen in lesser quality and untested power solutions.

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ZONES

Product / Power 8 Ohm	Power all channels	Power Reserve Musical Fidelity Recommendation	BPC3		BPC5		BPC10			BPC16		
			Zone 1 Sources 300W	Zone 2 Amp 300W	Zone 1 Sources 200W	Zone 2 Amp 800W	Zone 1 Sources 200W	Zone 2 Sources 200W	Zone 3 Amp 1550W	Zone 1 Sources 600W	Zone 2 Sources 600W	Zone 3 Amp 2000W
Amplifiers												
A1 / 25W	50W	100W		✓		✓			✓			✓
M2si / 72W	144W	220W		✓		✓			✓			✓
M3si / 85W	170W	250W		✓		✓			✓			✓
M5si / 150W	300W	450W				✓			✓			✓
M6si / 220W	440W	660W				✓			✓			✓
M6s PRX / 230W	460W	700W				✓			✓			✓
M6si500 / 500W	1000W	1600W										✓
M8xi / 550W	1100W	1700W										✓
M8s500s / 500W	1000W	1600W										✓
M8s700m / 700W	700W	1050W							✓			✓
Nu-Vista 600.2 / 160W	320W	500W				✓			✓			✓
Nu-Vista 800.2 / 330W	660W	1000W							✓			✓
Nu-Vista PAS / 300W	600W	900W							✓			✓
Nu-Vista PAM / 600W	600W	1200W							✓			✓
M6x 250.4/2 / 180W	360W	550W				✓			✓			✓
M6x 250.5 / 125W	625W	950W							✓			✓
M6x 250.7 / 125W	875W	1550W										✓
M6x 250.11 / 125W	975W	1800W										✓
Sources												
Power Requirement per Source		~ 20 - 40W										
4-5 connected Sources		~ 180W	5 - 6		4 - 5		4 - 5	4 - 5		6 - 8	6 - 8	
6-8 connected sources		~ 320W										
General Amplifier Recommendations												
2x50W	100W	Class A		✓		✓			✓			✓
		Class AB		✓		✓			✓			✓
		Class D		✓		✓			✓			✓
2x100W	200W	Class A				✓			✓			✓
		Class AB		✓		✓			✓			✓
		Class D		✓		✓			✓			✓
2x250W	500W	Class A				✓			✓			✓
		Class AB				✓			✓			✓
		Class D										

EXPLANATION

Sources typically don't have high power consumption of ~ 20 - 40W. Practically speaking, you will always be able to connect all your sources to one zone without worrying about power consumption.
Example sources: Preamp, Phono Preamp, Turntable, Tuner, CD player, DAC, Streamer, Tape Machine

Amp should be connected to the zone with the highest power output. Don't mix amplifiers with digital or analogue sources in one zone. Amplifiers should always have their own zone.
Amp Power: The above table is only valid for 8 Ohm power data.
Please only use 8 Ohm data when comparing amps from other manufacturers.
Musical Fidelity provides power data at 8 Ohm measured at full bandwidth from 20Hz - 20kHz with minimum THD.
Other manufactureres often provide power data at 4 Ohm measured at 1kHz with max. 1% THD. This will inflate actual measurments and true power is often only at a quarter or half of the published data.

Which BPC for which Amp?

MF amps In order to know wich BPC is best used for your amp you need to know your amp's **Power Reserve** to account for its **peak power** draw. According to our **Power Reserve** recommendation you can find your matching BPC.

Non MF amps For other manufacturers we give general recommendations for Class A, AB or D amplifiers.
A 50W Class A amp has a **higher power requirement** than a 50W Class AB amp. And a 50W Class AB amp again has a higher power requirement than a 50W Class D amp.
The **General Amplifier Recommendations** table provides a quick reference tool to find out which BPC should be used for which amplifier of a certain power and Class.

Calculate Power Reserve
Class A: calculate **100%** of amp power as reserve to determine peak power draw
Class AB: calculate **50%** of amp power as reserve to determine peak power draw
Class D: no reserve calculation necessary

Rules:

- **Don't mix „Analogue" & „Digital" in one zone!**
  Analogue: Turntable, phono preamp, analogue preamp, tape machine, FM tuner
  Digital: CD player, BluRay player, DAC, streamer, digital preamp, DAB tuner, beamer, TV, Home Theater A/V receiver
- **Don't mix switch mode PSUs with toroidal/linear PSUs!**
- **Keep Power Amps separate in their own zone:** **Don't mix Digital Sources with Power Amps!**
  Don't mix Analogue Sources with Power Amps!

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BPC5

SPECIFICATIONS

Power Conditioner

- Output Voltage: 110-120V/220-240V
- RFI attenuation: > 57dB @ 235kHz, > 40dB @ up 1MHz
- 2 isolated power output zones
- Balanced toroidal power transformer
- Surge protection and DC blocker ≥ 2V
- Over voltage and under voltage Protection
- Overload protection

Connections

- Power Outlets: 4 Outlets
- Isolated Power Zones: 1x 200VA, 1x 800VA
- Peak Combined Power Output: 1200VA / 5A
- Maximum Rated Power Output: 800VA / 5A

General

- Mains voltages: 110-120V/220-240V. AC 50/60Hz
- Max. Consumption: 800W
- Dimension (WxHxD): 440 x 125 x 400 mm
- Weight: 20,6 kg net / 25 kg boxed