

Keces BP Series Balanced Power Conditioner Review

In our never ending and passionate quest for best performance out of our audio systems and high end gear, we tirelessly seek ways and areas of our music playback systems to improve upon.

As many of us passionate audiophiles know from experience, a well designed power conditioner can bring substantial improvement to the sound quality of our systems.

Having purchased such a device we have high expectation it will improve the sound quality in our audio systems and equally, if we are adding a power conditioner to our video systems with our high resolution TVs and video players, we are hoping to squeeze more performance and derive maximum satisfaction from our investment into such gear with a clearer, better quality picture.

To achieve such results, the power conditioner has a rather difficult task of ultimately cleaning up the dirty and polluted AC lines in our households and to provide steady and clean source of alternating current our gear relies on to perform its best. Unfortunately, our AC lines are ultimately shared with multiple household appliances and other polluting sources such as noisy dimmer switches, fluorescent light bulbs and tubes, computers, laptops, printers, cordless phone systems, Wi-Fi routers and modems, microwave ovens, washers and dryers, multi-speed fans and other gadgets and gizmos often found in our modern households. Our AC lines carry a utility company provided steady AC of 50/60Hz depending on where we live and our modern appliances waste no time to introduce noise and grunge into that fresh supply. The EMI/RFI pollution is at an all time high because the modern devices often manipulate the AC in order to create other forms such as low voltage DC or higher frequency AC to operate. Dimmer switches as one example, turns the flow of electrical current to the bulbs "on" and "off" repeatedly and very rapidly, disrupting the normal flow of 50/60-Hertz AC electricity. Compact Fluorescent Lightbulbs as another example, convert alternating current to DC current and then back to high frequency AC current in the 20,000 to 60,000Hz range. The CFL ballast often introduces spikes and surges into our AC lines. This dirty and grungy AC in turn travels along household wiring and radiates into rooms. Is it any wonder our systems can often sound inconsistent or unsatisfactory throughout the course of day or night when the shared AC lines bring polluted AC to our sensitive gear? Much like the accepted and logical concept that we would not want to use dirty and contaminated fuel for our cars, our gear also appreciates and performs best with the "high octane" version of the rock solid and clean sinewave AC without spikes, surges and noise.

This brings me to the subject of review, the all important investment into a clean and steady source of AC our gear requires and appreciates, rewarding us with the satisfaction of hearing our gear the way it was intended to perform.

I have spent some time evaluating the Keces BP Series, model "BP-600" Balanced Power Conditioner for my headphone gear. Specifically, I wanted to address the clean source of AC and be sure that my DAC and headphone amp are being supplied with the cleanest and steadiest AC power possible to achieve maximum performance from the headphone amp and my D to A converter. Having invested not an insignificant amount of money into the amp, DAC, a few headphones and better quality cabling, the power conditioner was the finishing touch to my oasis of musical enjoyment, my corner of the house where I retreat to after a hard day's work to relax, recharge, enjoy and simply lose myself in my favorite music. I think we all deserve an oasis of tranquility and soul refreshing moment of time where we can enjoy our favorite music on our high end system we have so proudly collected and assembled. In the words of Edward Bulwer-Lytton "Music, once admitted to the soul, becomes a sort of spirit, and never dies." Of course during those moments of my musical bliss, the last thing I want is for the dirty AC to come between my gear and my music listening satisfaction.

BP-600 is the smallest and most compact balanced power conditioner model available from Keces. With its 300x220x66mm or roughly 12x8x2.5in, it can easily reside on a desktop or an audio rack but it's compact size is not an indication of its performance or build quality. Weighing in at 7kg or 15.4 lb, the Keces BP-600 sports a 4mm thick, black aluminum chassis that exudes high quality and elegance with nicely radiused front corners and indented company name "Keces" appearing on the top cover. I find the overall package very appealing and certainly enjoy how it compliments the rest of my gear. If I was to park it on my desktop, I would be equally proud of its looks. Of course the appeal of the BP-600 is a big plus, I want to enjoy looking at all the components, including the power conditioner, which from my experience is a must in any high end system.

Starting from the front face plate, one will find a power button and 2 LED status lights, blue indicating a powered on condition and the green LED indicating all systems are "go", turning red in case of an under/over voltage protecting your gear from such events. In case of an overload and I can not imagine this ever being the case since the BP-600 is rated at 600VA and is more than enough for any 2 devices that would be plugged into such a compact power conditioner, the BP-600 is protected by a "No Fuse" push-button breaker around the back of the chassis. If the overload condition is cleared, a simple push of the reset button will restore operational condition of the BP-600. Much more convenient than having to change a fuse! At the rear of the chassis, one will also find 2 high grade outlets to plug the power cords of your choice, be it stock or upgraded variety (I use the outstanding Wireworld Silver Electra 7 power cords with much success).

Of course an appealing chassis, while certainly nice, is not the main objective here. Certainly the BP-600 has a job to do after all and the rest of the gear upstream from it depends on it. Inside the BP-600 is where the real value resides and what is hidden from the eyes, benefits the ears most. Keces has certainly put a tremendous effort into this series of balanced power conditioners and spared no expense while keeping the overall price in the rather affordable and value oriented range in my opinion.

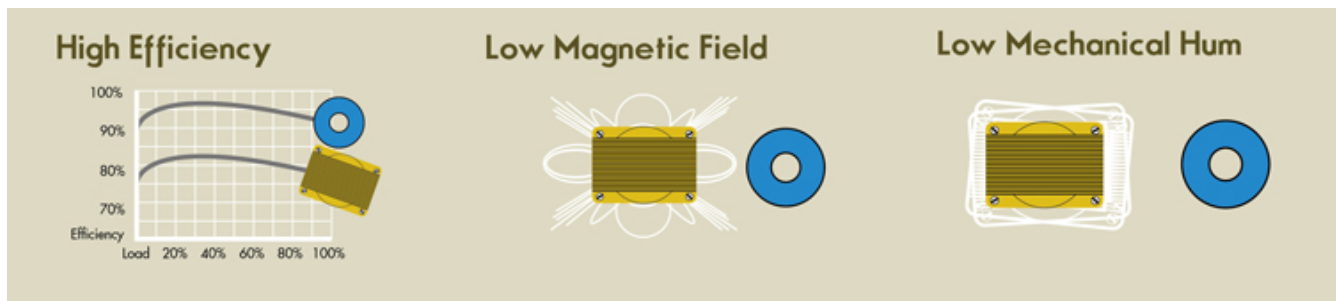
Let's dive in and discover what secret ingredients are inside. Keces obviously has nothing to hide and in fact must be quite proud of their accomplishment as the pictures of the inner chassis are readily available. Glancing over the neat and tidy layout of the components, I am pleasantly surprised at the effort that went into the design. The heart of the Keces Balanced Power conditioner is a massive, high quality, toroidal isolation power transformer. The key to efficiency of any transformer is the core. Keces spared no expense with a continuous strip of grain oriented silicon steel wound like a clock under tension. It is annealed to relax the molecular structure which ensures all the grains are in the magnetic direction. All symmetrical windings, gapless core achieving 95% stacking factor of its weight, with a higher flux density and 90% efficiency. Toroidal transformers radiate about 1/10 the magnetic field of the older EI transformers because of the inherent efficiency and unique construction. The windings which cover the core act as a shield. The magnetic field is contained doing what it should, transforming energy from primary to secondary.

Toroidal transformers are also acoustically quieter than EI transformers. In addition the windings tightly envelope the entire core, effectively reducing magnetostriction – the main source of the familiar mechanical hum found in standard vertically laminated EI transformers. Compared to EI transformers, toroidal are silent. That is why the toroidal transformer is suitable use in sensitive equipment and our high end gear benefits no less.

Having covered the benefit of a great quality toroidal isolation, another important factor is the "balanced power" approach and why this is beneficial. When a typical AC circuit is connected to an impedance load, there is a "hot", "neutral" and "ground" conductors in which the "reactive" currents, a capacitively discharged energy which can be considered a "backwash" of non-acting power exist. This is wasted energy but a naturally occurring phenomena with non-linear load applications which in turn invades our assumed zero reference potential (the ground). As these reactive currents from the load are applied across the source transformer's impedance, reactive voltage is also present. Thus, this reactive voltage potential presents itself in the grounding system of an AC circuit via the neutral to ground connection and typical designs must rely heavily on the supplies transformer for common mode noise rejection.

Keces has chosen another approach with "Balanced Power" in which "reactive currents" null or cancel at the center tap of the AC transformer, thus eliminating the reactive current in the ground as a source of interference in the signal circuits. Since most noise or interference in AC lines are common to both lines, the noise in the lines is eliminated when the two lines are added together in the Balanced Power scheme or Common Mode Rejection.

As you can see in the pictures, all of the rest of associated components exude quality and elegant design as well.



The high end gear plugged in is of course also protected by Keces BP-600 with Surge Protection and Suppression with an elegant solution of innovative series mode surge suppression that also pays attention to keeping the power clean. Most surge suppression circuits are shunt-mode. Excessive voltage surges are "shunted" to ground, which raises ground voltage and may contaminate audio and video signals. KECES design absorbs surges more than 2V above peak line voltage, so ground is not affected. KECES uses the Toroidal Isolation transformer to replace the series inductor typically used by other brands. This ensures extremely low stray magnetic fields within the chassis.

Of course the above description would be of little benefit to us, the audiophiles and videophiles who ultimately will enjoy and reap audible and visible benefits from such an outstanding power conditioner if the BP-600 did not deliver on the promise of keeping the dirty AC present in our household wiring in check.

Hopefully I did not bore you with all the details and I am happy to share my findings of the actual performance of the BP-600. As we all would agree, this is where the "rubber meets the road", in the actual deep listening proof.

From the first time I plugged my headphone amp and DAC (Violectric V281 and Schiit Gungnir Multibit) into the Keces BP-600 that was in turn fed by a Shunyata Venom HC power cord from the AC outlet, I was immediately struck by the immediate drop in the noise floor of the system. The Audeze LCD3 is one of my favorite set of headphones for jazz or blues and I was awestruck by the increase in apparent resolution of my favorite and very familiar recordings. Hearing deeper into the soundstage may be a cliché but in all reality it is exactly what I heard. From the palpable imaging, with densely focused instead of diffused images, to the wider and more believable soundstage in which instruments recorded/panned hard to edges of the soundstage were more realistic in their presence and palpability. I did not think the Audeze LCD3 set was quite capable of such imaging before. The lush mids were not simply romantic, euphonic and engaging as I typically hear them through the LCD3 but also took on a liquid and seductive quality, it was much easier to connect with the emotional aspect of the female jazz singers. Upright bass as double bass and other acoustic instruments benefited from the increase in harmonic richness or bloom and this was not a tube amplifier I was listening to. The stringed instruments resonated with a palette of harmonic beauty and colors not quite witnessed by me before with this amp. Never knew the Violectric V281 could quite match tubes in this regard. Turns out it can after all.

Tiniest of details that were overlooked before, appeared with an almost microscopic retrieval and precision. On live recordings I could clearly hear information I was never able to pick up on with the Focal Utopia headphones before. The clarity and accuracy of the Utopia with a great quality, high resolution recordings from the recording studios such as SoundLiaison in Netherlands, which were natively recorded in PCM 96, 192 or even DXD 352,8 were simply jaw dropping in realism, brilliance of the clarity of instruments and the spatial cues captured and present in the recording that clearly delineated the acoustic space where the recording took place. This is what we pay the big bucks for with such reference quality headphones! When enjoying such high resolution music, I don't want to miss any of the smallest of details with such phenomenal headphones as Utopia. The BP-600 made sure I did not miss out on anything.

If I always heard a touch of midrange grain when listening to either the Valhalla 2 or the Lyr 2 tube/tube hybrid amps from Schiit with my old and reliable HD600, I was simply amazed that minor source of irritation and distraction from enjoying them was gone. Simply vanished when the Schiit amps were plugged into the BP-600. The focused imaging and soundstage were once again better than I ever heard through the HD600 and I never considered densely focused imaging to be a strong point of the HD600. I was wrong, they can and do focus images much better, the dirty power was simply holding the amps and my dac back from achieving this result with HD600.

Taking the Aeon Open Flow headphones for a spin with the Violectric, I clearly heard more detailed and yet still smooth and unforced presentation and character of the Aeons. They always seemed much more laid back and not quite as resolving before. Once again, I was missing out before the BP-600.

To summarize and say that I was merely satisfied with the sense of liquid ease, the flow of music, the rich tonal beauty and harmonic structure unraveled, the better and denser, more tightly focused imaging or the quality of timbre of music emanating from my favorite cans would be an understatement. Across all my amps and headphones, a much harder to describe or put in words quality united all of them, the music was simply more engaging, more intoxicating and even more enjoyable. Isn't that what we all strive for?

Of course a great power conditioner can do wonders for Video. I did try the BP-600 with my LG OLED 4K TV and OPPO 4K UHD BDP-203 player and having my wife evaluating along with me to see if we notice improvement was great help. We both clearly saw increase in at least "perceived" resolution, with colors that seemed more vivid and natural. The overall picture seemed more cinematic in quality overall. We tried a few more times back and forth just to be sure and the results were repeatable and undeniable. We both agreed it was a very nice improvement.

The Keces BP Balanced Power Conditioner is an outstanding and very worthwhile addition to my headphone system. I would highly recommend it to anyone looking to improve their sound quality and perhaps achieve that elusive balance of high resolution with a natural flow and ease to music when the gear is operating at its best. Keces also offers a model 1200 and 2400 with 4 and 8 outlets respectively for bigger and more complex systems. The model number designates the Volt/Amp or VA rating.

As for me, I will be adding another unit to my LG 4K TV and Oppo BDP player to enhance the video enjoyment as well.

<http://keces-audio-usa.com/products>



