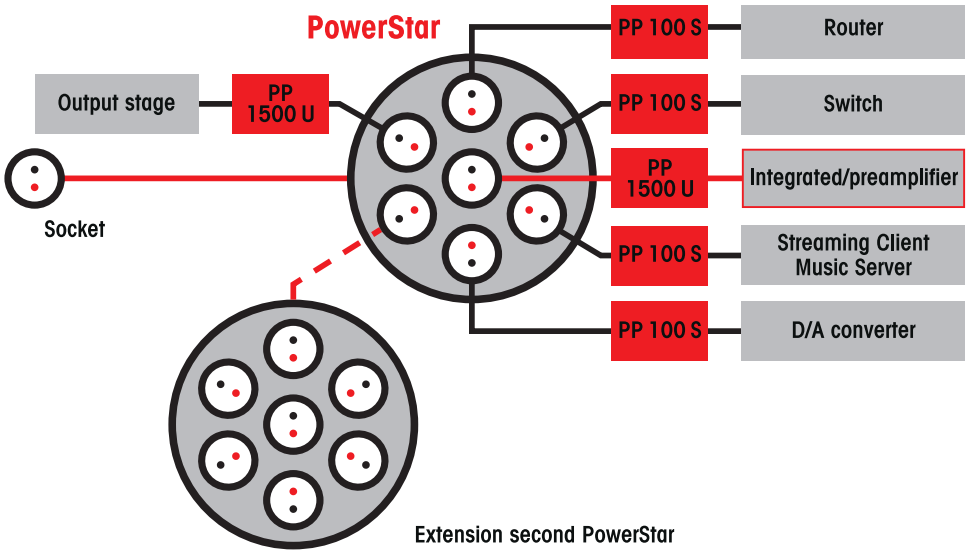
# PowerPlant 100 S5


The PowerPlant is used for the decoupling of individual units from the mains which themselves emit high-frequency interference into the mains or have a particular sensitivity to mains interference.
The unique construction of the PowerPlant with multiple nested windings, many shields and specially manufactured and tuned filter modules results in a high, so-called reverse attenuation. This means that not only mains interference coming from the mains is filtered out, but also interference running from the filtered unit towards the mains.
This predestines the PowerPlant for use with digital devices. These devices emit high-frequency interference into the mains, which in turn has a negative effect on the sound of other devices in the system. But also phono stages and analogue drives benefit extraordinarily from a separate filtering by means of the PowerPlant. In addition, the PowerPlant filters all DC components from the mains current, completely automatically and without additional electronics that influence the sound.
To prevent interference from entering via the earth wire while still allowing noise to be conducted away from the unit, the earth connection in the PowerPlant is gently filtered.

New to the PowerPlant100S5 are a mains switch and a mains cable connection. Both are integrated into the design in such a way that no sound deterioration results from the additional components. On the other hand, the quality and length of the power cable can be changed at any time and the power consumption of the PowerPlant100S5 can be reduced to zero in stand-by mode.
In addition, we have revised the filter isolating transformer and the potting based on our experience with the latest PowerPlant1500U3 generation. In fact, „little things“ like the avoidance of resonances in the laminated core or air gaps and the optimisation of the packing density in the transformer laminations are clearly audible. Even the potting is not only a mechanical damping. Its electrical properties in terms of capacitance and losses play an important role and influence the sonic result. After a long search and many experiments, I found a material and modified it with additives in such a way that, compared to the previous one, significant advantages could be achieved. The sound becomes freer and smoother, more differentiated, more dynamic and more detailed. The listener becomes more involved in the musical events.




Regarding the challenges of filter development, I would like to say that we noticed early on - as early as the 1980s - that filters make a cleaner sound possible, but they can also cause a reduction of dynamics in reproduction and a change in sound colour. Especially in the mains area, it happens quite easily that upstream components improve hifi criteria such as resolution, clarity and spatial imaging, but musically important criteria such as naturalness, agility and liveliness deteriorate. This did not give me pause to examine these effects more closely, to analyse them and to work out a solution. After all, dynamics, timbre and naturalness in reproduction are important elements to „draw the listener into the music“.
According to my findings, interactions between the interferences and the components in the filter lead to these effects, which ultimately become audible through modulation in the music signal and leave an unwanted signature there.
Only filter components that have been specifically developed for each filter task and tuned to the ear and their generous overdimensioning avoid the negative effects and bring the filter effect to full fruition.

| Technische Daten | PowerPlant 100 S5 |
|---|---|
| Mains voltage | 230 V ~ |
| Current carrying capacity | 100 VA Duration |
| Overload protection | thermal, reset after cooling down and mains fuse 0.8AT |
| Filter | 6-fold nesting |
| Output | 230 V ~, earthed, DC voltage-free |
| Construction | freely wired, encapsulated against microphony, 5 mm cast aluminum housing alternatively without cable or with 1.5 m Ampère S or L, other lengths to order |
| Supply cable | 0.9 m Ampère S, other lengths to order |
| Dimensions (WxHxD) | 12 x 8.5 x 22 cm |
| Weight | 2.4 kg |