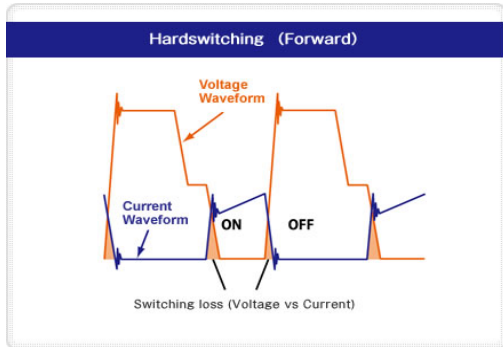


# Daitron Power Supply Q&A

- Q1. How to make negative (-) voltage using HFS series?  
 A1. Normally you can get positive (+) voltage by connecting between + and -. Connect + to FG when you need negative (-) voltage.

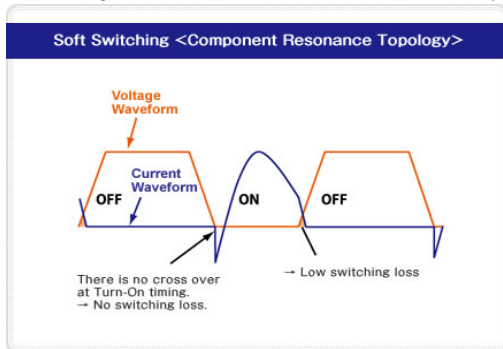
- Q2. What is the difference between Soft Switching and Hard Switching.  
 A2. Switching Power Supply has mainly 2 types of switching topologies.  
 1. Hard Switching

When PSU turn on/off operates to create power, it will also create ringing effects(noise) at the edge of square waves of the current.



2. Soft Switching (Resonant)

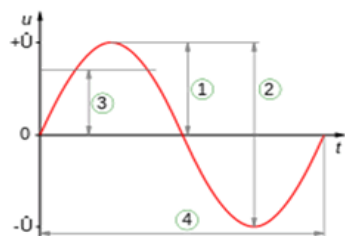
In our system, we followed Soft Switching in order to reduce noise. Soft Switching could minimize the noise because of its current output forms sine wave.



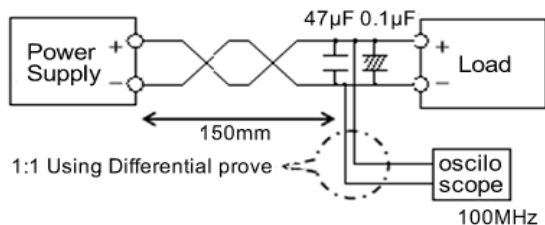
\* Also this wave form cross point is "zero", so this feature also reduce the efficiency loss. We combined ZVS(Zero Voltage Switching) and ZCS (Zero Current Switching) to get better results mentioned above. That is why our products are called " Component resonant topology".

- Q3. What is the recommended Voltage and Current value for remote control feature?  
 A3. 5V / 5mA  
 But please refer to the instruction manual (2-6 remote on/off circuit) when you want to use 6.5V or more to control turning on/off this feature.

- Q4. Ripple Voltage Value in our data sheet is Rms, Peak or Peak to Peak?  
 A4. Basically Daitron Power Supply products use Vp-p (peak to peak) value in our data sheet. All these values are under the JEITA specified measurement method as below.  
 \* JEITA Japan Electronics and Information Technology Industries Association



- 1) Peak
- 2) Peak to Peak
- 3) RMS
- 4) Cycle



## Ripple measurement method

We carefully choose these values (most of these values are from worst case conditions). Actual value would be smaller depends on ambient temperature, voltage and load conditions. Please refer to our test data.

Q5. Can you get the test data of DPS products?  
A5. Yes. You may download at our technical data page. Please click the below link;  
<http://www.daitronpower.com/technica-data.html>  
If you have any other specific request, please submit us your requirement in detail.  
Email: [techsupport@daitronpower.com](mailto:techsupport@daitronpower.com)

Q6. My PSU suddenly stopped and doesn't work. What's happened?  
A6. Sometimes OVP or OCP feature works and stop PSU to operate for safety reason.  
You may turn off AC and disconnect wires. Then wait for a couple of minutes.  
Then please connect wires again. It will work again.  
Otherwise, please consult our local field sales team for further assistance.

Q7. What is the switching frequency of DPS?  
A7. Some models are fixed, but others are not.  
The switching frequency of our PSUs are mostly less than 127KHz.  
Following 3 models have fixed switching frequencies as below.

HFS150A	58KHz
DFS150A	58KHz
DFS100A	70KHz

Q8. Part number definition  
A8. Please take a look at the "Part number definition" as below link.  
[http://www.daitronpower.com/pdf/Daitron\\_Power\\_Supply\\_product\\_number\\_definition.pdf](http://www.daitronpower.com/pdf/Daitron_Power_Supply_product_number_definition.pdf)

Q9. Input Voltage Range  
A9. Some of our models are only accept narrow input range, but most of the type can accept  
"Universal Input" (86-264Vac). That is why we mention this in our data sheets.

Q10. Parallel Connection  
A10. Some customers request Parallel connection in order to get more output power.  
But our system can not connect in Parallel .

Q11. What are the differences with other switching power supplies?  
A11. a. **Ultra Low Ripple and Noise**  
HFS series 3mV to 10mV (depends on models)  
Others 100mV or more  
b. **Low Leakage Current**  
HFS series 40uA to 100uA (depends on models)  
Other Medical 100uA, 250uA and 300uA  
Others 350 to 750uA  
c. **Small size and weight**  
\* Low noise feature could minimized external filter components count.

Q12. What are the advantages compared with linear type of power supplies?  
A12. a. **Small size**  
b. **Low Cost**  
c. **High Efficiency (= Low Heat)**  
d. **Universal wide input range (85VAC to 264VAC)**

Q13. What is the country of origin of these products?  
A13. Japan