

## Daitron Ultra Isolation Transformer

### Ultra Isolation Transformer 910 series

Ultra Isolation Transformer J910 series protect sensitive electronic equipment against electrical noise disturbances. These disturbances, from such sources as lightning, utility network switching and the operation of electric motors, are the most prevalent and most troublesome of all AC power disturbances. Noise signals that can affect electronic equipment occur approximately seven times more often than voltage fluctuations and blackouts combined. So it makes sense to give sensitive equipment the best protection available.

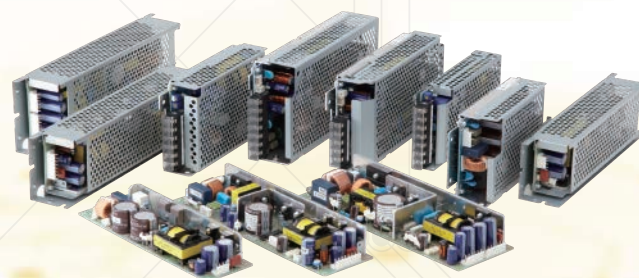
#### Features

- Common Mode Noise reduction 20,000,000:1 (- 146dB)
- Normal-Mode Noise Reduction
- High Efficiency
- Proprietary triple shield technology



### Daitron UPS Customization

We have been developing and producing UPS products which can meet customers' requirements for many years. We have numerous developed products for Semiconductor Manufacturing Equipment, Medical Diagnosis, Inspection and Test Instruments.



#### Value added services

We also offer system power console based on our Low Noise Power Supply products for the customers who need off-the-shelf one stop shop power supply for multiple channel outputs. Please consult our local sales engineers for more information with your power requirements.

#### Ready to learn more?

Please contact our local sales support offices near you today. Detail information would be also available on our product web site below.

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**Daitron**

# Ultra Low Noise Power Supply Products

DAITO ELECTRON CO.,LTD.

Products Site Corporate Site



# Daitron Ultra Low Noise Switching Power Supply

## Get rid of Linear Power Supply

Daitron provides a clean power solution to noise sensitive applications. Often system design engineers are faced with many difficulties in choosing their critical power source for their noise sensitive design applications. Formerly, in selecting a low noise power source, the choice was limited to linear power supplies but with that comes heavy weight, huge size and low power efficiency technology, with expensive cost. The alternative would be a noisy switching power supply for low cost in a small foot print and space. Daitron provides the ideal alternative solution to these.

### Why Daitron Power Supply

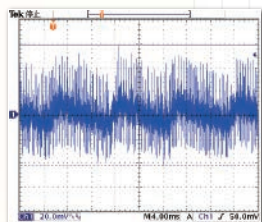
- Improve S/N Ratio
- Small, Light Weight and High Efficiency

Specification	LINEAR POWER SUPPLY	HARD SWITCHING POWER SUPPLY	DAITRON SOFT SWITCHING POWER SUPPLY
Noise level	Low	High	Low
Leakage Current	Low	High	Low
Size	Large	Small	Small
Weight	Heavy	Light	Light
Component Count	Low	High	Low
Price	High	Low	Competitive

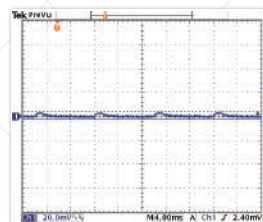
### How it works

How does Daitron power work? Compared with other Hard-Switching power supplies, we reduce noise level dramatically down to 1/10 value, as seen below. Additionally, we reduce conduction noise Class B required levels, as seen below, meaning our customers save resources for noise immunity testing.

#### Ripple Noise @AC input

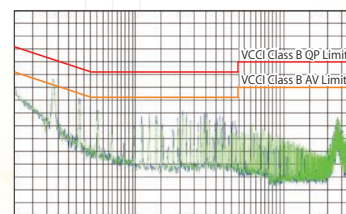


Competitor's Hard Switching (50W-12V)

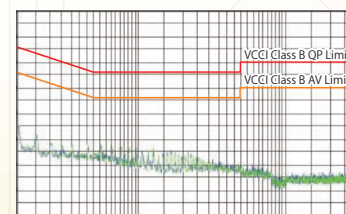


Daitron HFS Ultra Low Noise (50W-12V)

#### Conducted Emission Noise



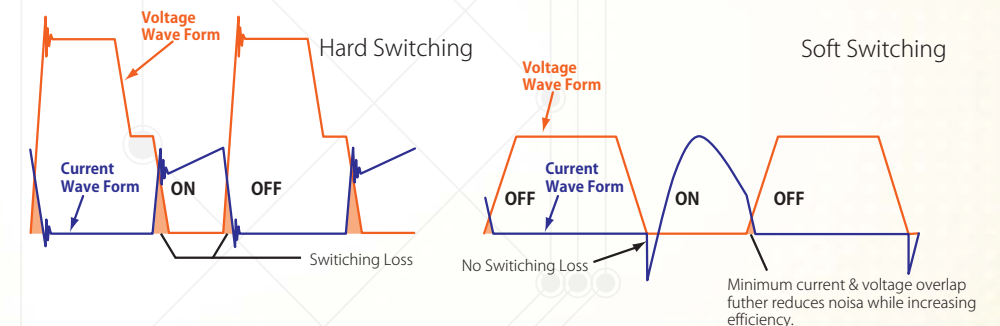
Competitor's Hard Switching (50W-12V)



Daitron HFS Ultra Low Noise (50W-12V)

### What is Daitron Power

Daitron's Power Supply succeeded in sourcing the most quiet output power for customers' applications. It features built-in Soft-switching topology based technology in order to reduce the noise level for sensitive systems. The topology creates a clean current wave and the Daitron engineering team carefully designed current and voltage timing synchronizing at "Zero-Cross" point in order to achieve our goal to operate our power supply at the lowest possible noise level. This is how our ultra low noise power supply can meet the customer's requirement to achieve ultra low noise switching power in a small and light weight unit. Additionally, this ultra low noise feature brings the benefit for customer design engineers to save on design resources. Our ultra low noise power supply can reduce external output filters with very low leakage current.



### Application

- **Microscopy <SEM/TEM>**  
Improve Magnification
- **Medical Imaging / Diagnosis**  
Ultra Low Leakage Current than Medical Requirement  
Ultra low conduction noise & low emission noise feature makes power supply design smaller and lighter than ever  
Save resources for medical approval in customer's design ( Depends on product series )
- **Nanoscale measurement, Image sensing and image processing**  
Minimize noise interference as less as possible from the power source.
- **Audio**  
Reduce Audible noise and improved S/N Ratio will reproduce closed to the real sound.

## Products Selection Guide

### Ultra Low Noise Type

Product Series	HFS30	HFD30	HFS50	HFS150A	PFS300A
Specification					
Output (W)	30	30	50	150	300
Input Voltage (VAC)	85 to 264	85 to 264	85 to 264	85 to 264	85 to 264
Ripple & Noise (mVp-p)	3-5	2-3	3-6	10	10
Output Voltage (VDC)	5/12/15/24/48	+/-12 or +/-15	5/12/15/24	5/12/15/24/30/48	12/15/24/30/48
UL/CSA	UL/EN 60950-1	UL/EN 60950-1	UL/EN 60950-1	UL/EN 60601-1, 60950-1	UL/EN 60601-1, 60950-1
CE	Low Voltage Directive	Low Voltage Directive	Low Voltage Directive	Low Voltage Directive	Low Voltage Directive
UL File #	E237238	E237238	E237238	E320635, E237238	E320635, E237238

### Very Low Noise Type

Product Series	DFS50	DFS100A	DFS150A
Specification			
Output (W)	50	100	150
Input Voltage (VAC)	85 to 264	85 to 264	85 to 264
Ripple & Noise (mVp-p)	20 - 50	40 - 50	30 - 40
Output Voltage (VDC)	5/12/15/24/48	5/12/15/24	5/12/15/24/48
UL/CSA	UL/EN60950-1	UL/EN60950-1	UL/EN60950-1
CE	Low Voltage Directive	Low Voltage Directive	Low Voltage Directive
UL File #	E237238	E237238	E237238