Ultra Low Noise AC/DC Switching Power Supply

HFS50

Daitron's HFS50 is a Ultra Low Noise AC/DC Switching Power Supply Product can supply up to 50W. It features built-in proprietary based technology to reduce noise enough level for noise-sensitive systems.

Very Low leakage current feature can also minimize your external filter circuit design work and space.

This is an ideal solution who needs very low noise, small, light weight and high efficiency power supply for your next challenging designs.

Features

- Ultra Low Ripple & Noise
  3mV to 6mVp-p
- Low Leakage Current
  60uA to 150uA
- Universal Input
- Approved Safety Standards
- Meet EMC Safety Standards
- RoHS Free, Vinyl Chloride Free, Halogen Free (PCB)

Model No.

HFS50 - XX*

* Specify output voltage option 5/12/15/24/48

Specification

	Model Number	HFS50-5	HFS50-12	HFS50-15	HFS50-24	HFS50-48
Input	Input Voltage Range	Rating 100-240Vac Single Phase * Range : 85Vac to 264Vac				
	Frequency Range	Rating : 50/60Hz, * Range : 47Hz to 63Hz				
	Input Current 100VAC / 200VAC * 1	1.4A / 0.8A at Full Load				
	Efficiency 100VAC / 200VAC * 1	75% / 78%	80% / 82%	81% / 83%	81% / 83%	81% / 83%
	Inrush Current 100VAC / 200VAC * 1	20A / 40A * When it operates under cold start				
	Leakage Current	60uA (100Vac, 60Hz) / 150uA (240Vac, 60Hz)				
Output	DC Output Voltage	5V	12V	15V	24V	48V
	Output Current	10.0A	4.2A	3.4A	2.1A	1.1A
	Maximum Output Power	50W	50.4W	51W	50.4W	52.8W
	Line Regulation	20mV max	48mV max	60mV max	96mV max	192mV max
	Load Regulation	40mV max	100mV max	120mV max	150mV max	240mV max
	Ripple Noise * 2	3mV p-p	5mV p-p			6mV p-p
Other Feature	OCP * 3	> 110% (Shut down output)				
	OVP * 3	> 115% (Shut down output)				
	Remote Sensing	None				
	Remote Control	Available				
	Operation Indicator	LED lighting				
Mechanical	Cooling System	Convection				
	Size	99 x 39.5 x 161.5 mm (Without terminal stand)				
	Weight	530 g				
	Input & Output Terminal / Signal Terminal	Screw terminal				
Others	Noise Immunity	IEC61000-4-2, -3, -4, -5, -6, -8, -11				
	Conduction Noise	EN55022-B, FCC-B, VCCI-B				
	Safety Certifications	UL60950-1, CSA-C22.2, NO. 60950-1, EN60950-1 Electrical Appliance and Material Safety Law CE Marking, Semko				

Environmental Condition	
Operating Temperature / Humidity	- 10 degree C to + 60 degree C * With output / 30%RH to 90% RH * Non Condensing
Storage Temperature / Humidity	- 20 degree C to + 85 degree C / 10%RH to 95% RH * Non Condensing
Vibration Resistance	19.6m/s ^{2} 10 to 55Hz 1minute Period 1hour for each X, Y, Z direction
Shock Resistance	< 196.1m/s ^{2} 11ms 1 time for each X, Y, Z direction
Isolation	
Isolation Voltage	Input— Output : AC3KV for 1min Cut off current 20mA * Under normal temp & humidity condition
	Input— FG : AC2KV for 1min Cut off current 20mA * Under normal temp & humidity condition
	Output—FG : AC500V for 1min Cut off current 20mA * Under normal temp & humidity condition
Isolation Resistance	Input— Output , Input—FG, Output—FG DC500V >100M ohm

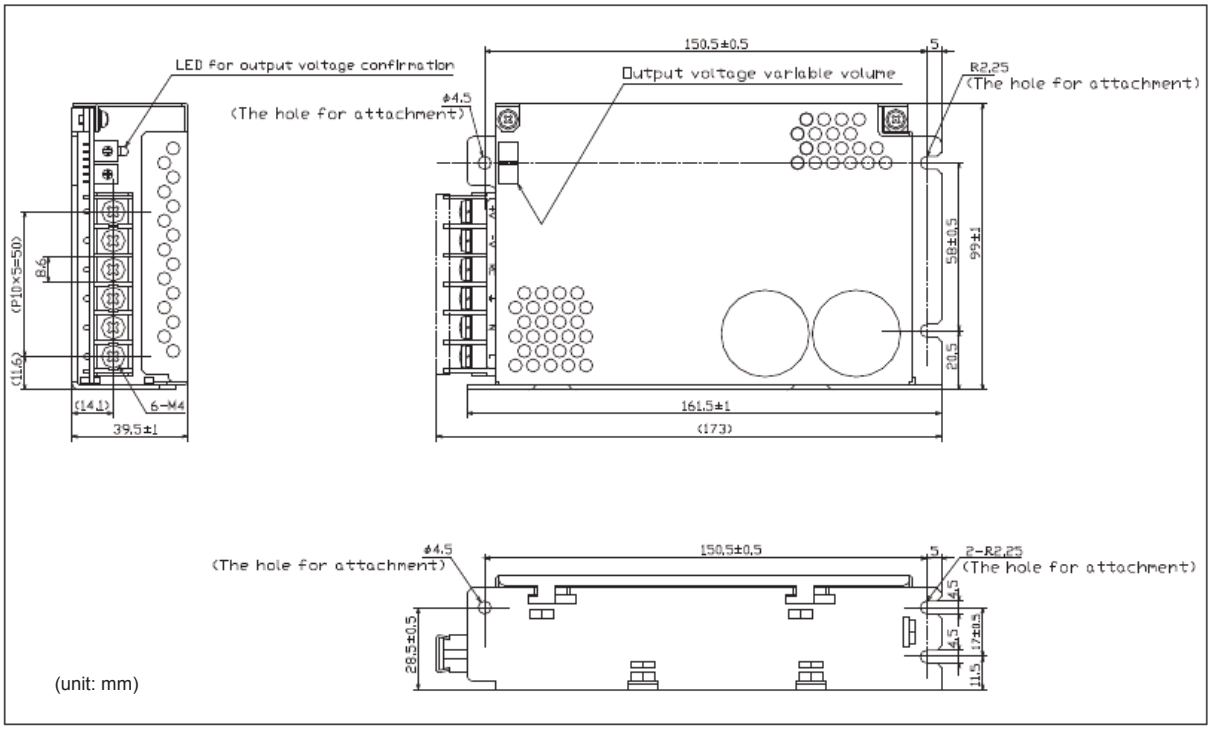
*1 Conditions: Ta = 25 degree C
*2 JEITA specified measuring method
*3 Upon over voltage or over current conditions, input power must be removed to allow unit reset to occur within a few minutes.

Note: Derating is required by operating temperature. Follow the overload and specification in manual to avoid the damage of power supply.

http://www.daitronpower.com
sales@daitronpower.com

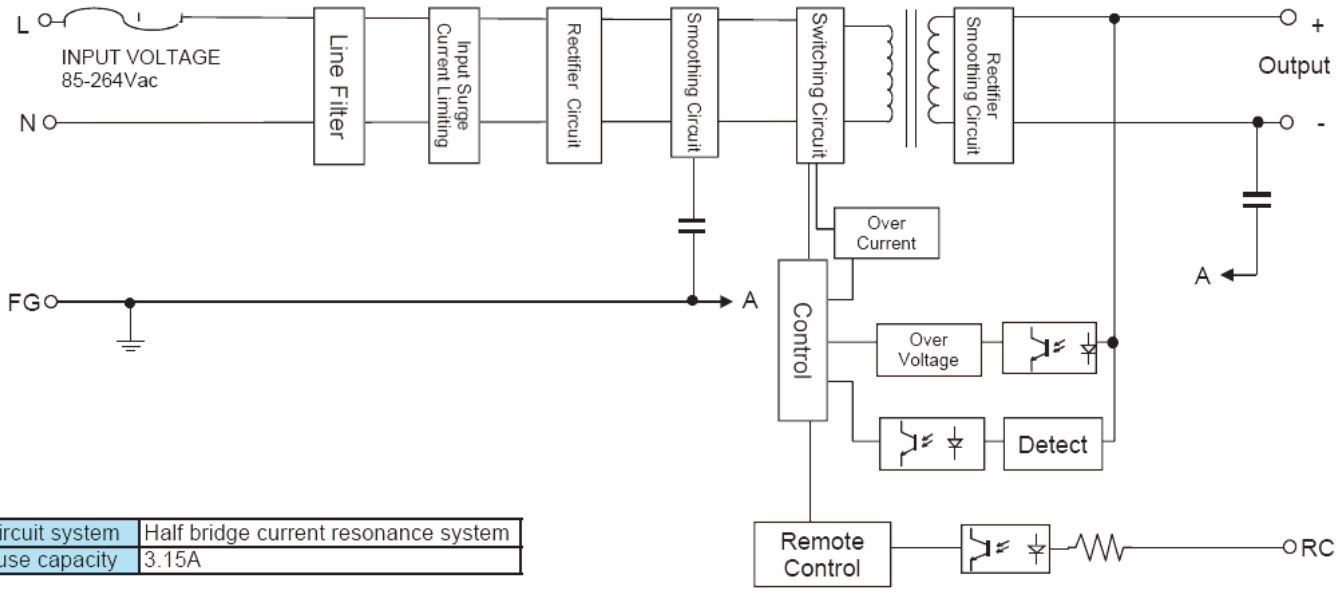
Mechanical Drawings

Pin #	
1	Input (L)
2	Input (N)
3	FG
4	RC
5	Output (-)
6	Output (+)



・Warning: Large capacitive load should be applied or removed only with NO AC power applied. Large inrush current may result in damage.
・Incorrect operation will damage Power Supply.

Block Diagram



Circuit system	Half bridge current resonance system
Fuse capacity	3.15A

・Specifications subject to change without notice

Address : 6, Kojimachi 3-chome, Chiyoda-ku, Tokyo 102-8730 Japan
Phone : +81-(0)3-3264-0261 Fax : +81-(0)3-3261-3984
Email sales@daitronpower.com http://www.daitronpower.com