

Ultra Low Noise Dual output  
AC/DC Switching Power Supply

# HFD30

HFD30 is a Ultra Low Noise Dual Output AC/DC Switching Power Supply Product can supply up to 30W. 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  
2mV to 3mVp-p
- Low Leakage Current  
40uA to 100uA
- Universal Input
- Approved Safety Standards
- Meet EMC Safety Standards
- RoHS Free, Vinyl Chloride Free,  
Halogen Free (PCB)

## Model No.

HFD30 - XX\*

\* Specify output voltage option : 12V or 15V

## Specification

		Model Number	HFD30-12		HFD30-15		
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	0.9A / 0.45A at Full Load				
	Efficiency	100VAC / 200VAC * 1	76% / 78%		76% / 78%		
	Inrush Current	100VAC / 200VAC * 1	20A / 40A * When it operates under cold start				
	Leakage Current	40uA (100Vac, 60Hz) / 100uA (240Vac, 60Hz)					
Output	DC Output Voltage	+12V	-12V	+15V	-15V		
	Output Current	2.2A	0.3A	1.5A	0.5A		
	Maximum Output Power	30W					
	Line Regulation	48mV max	60mV max	60mV max	60mV max		
	Load Regulation	100mV max	150mV max	120mV max	150mV max		
	Ripple Noise	* 2	3mVp-p	2mVp-p	3mVp-p	2mVp-p	
	Other Feature	OCP	* 3	Short Circuit on output terminal ( Shut down output)			
OVP		* 3	> 115% (Shut down output)				
Remote Sensing			None				
Remote Control			Available				
Operation Indicator			LED lighting				
Mechanical	Cooling System	Convection					
	Size	84 x 30 x 161.5 mm (Without terminal stand)					
	Weight	460g					
	Input & Output Terminal / Signal Terminal	Screw terminal					
Others	Noise Immunity	IEC61000-4-2, -3, -4, -5, -6, -8, -11					
	EMI Noise	EN55022-B, FCC-B, VCCI-B					

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 <sup>2</sup> 10 to 55Hz 1minute Period 1hour for each X, Y, Z direction
Shock Resistance	< 196.1m/s <sup>2</sup> 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

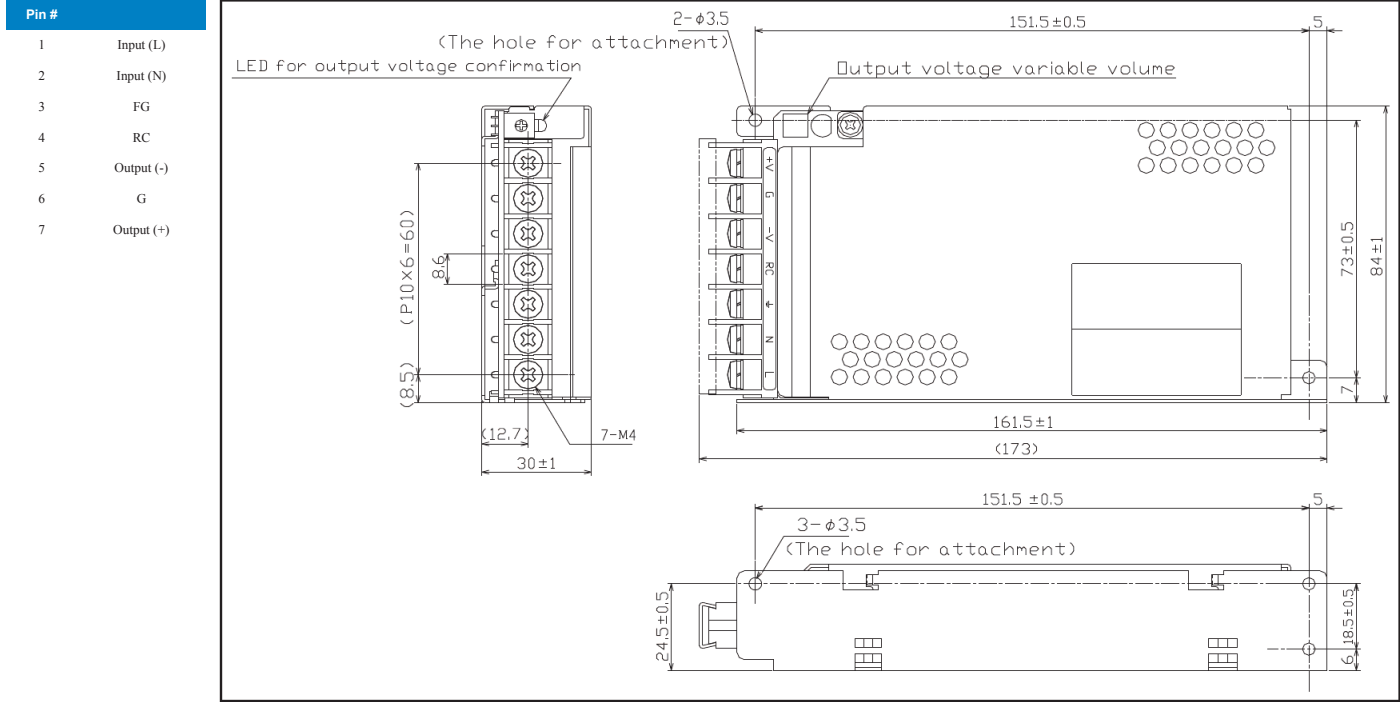
\*1 Conditions: Ta = 25 degree C

\*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.

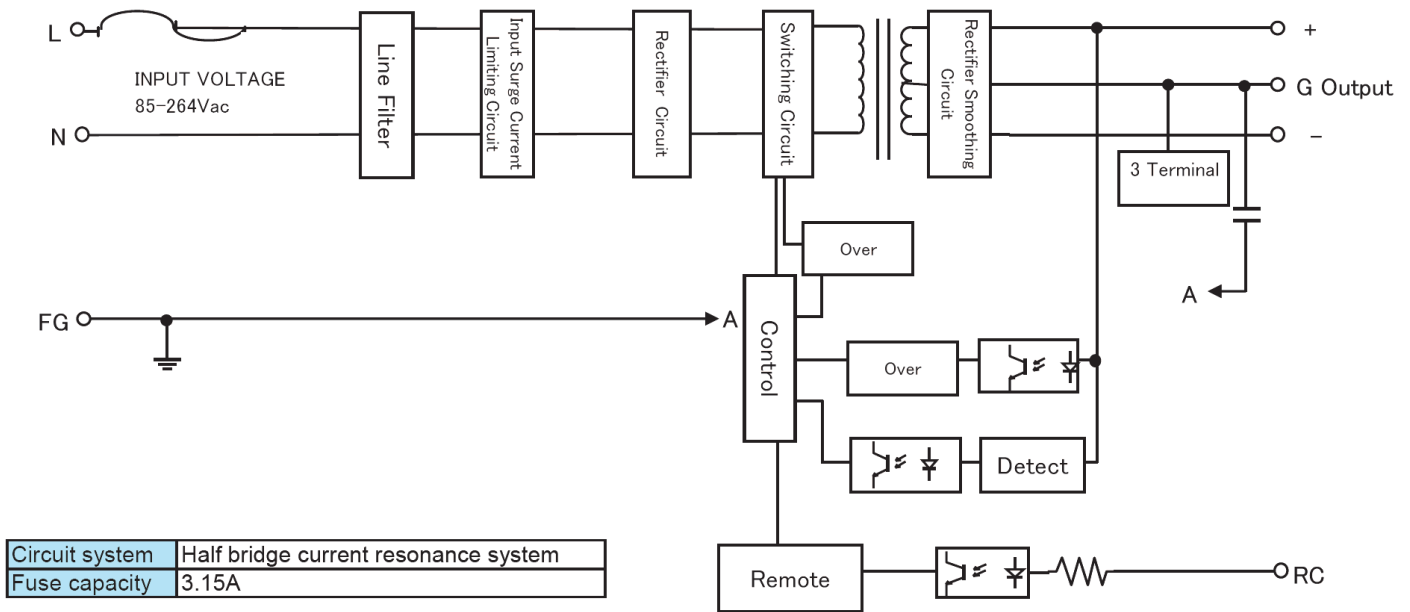
**Mechanical Drawings**



(unit: mm)

- 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**



• Specifications subject to change without notice