

Switching Power Supply

300W Ultra Low Noise AC/DC Switching Power Supply

PFS300 A



Ultra Low Noise AC/DC Switching Power Supply made by Daitron

The breakthrough PFS300A series, compact, light-weight, high-efficient, provides clean DC power with a complex resonant converter.

The PFS300A switching power supply, keeping leakage current, conducted emission, and radiated emission low is an ideal solution for noise-sensitive applications, especially the equipment used in advanced hyperfine measurement, testing and medical & biotechnology fields.

- ◆Reinforced Isolation ※Medical Standard Input-to-output
- ◆UltraLow Ripple & Noise (10mV)
- ◆Low Conducted Emission, Low Radiated Emission
- ◆Low Leakage Current (0.2mA/at 264Vac)
- ◆Safety Standard : 62368-1, 60601-1

Specification

	Model Number	PFS300A-12	PFS300A-15	PFS300A-24	PFS300A-30	PFS300A-48
Input	Input Voltage Range	Rating 100—240Vac Single Phase (Range:85~264Vac)				
	Frequency Range	Rating 50/60Hz (Range:47Hz~63Hz)				
	Input Current 100VAC/200VAC (*1)	4.0A / 2.0A (Io=100%)				
	Efficiency 100VAC/200VAC (*1)	80% / 83%	81% / 85%	83% / 87%		84% / 88%
	Inrush Current 100VAC / 200VAC (*1)	20A / 40A (When it operates under cold start)				
	Leakage Current 100V/200V/264V(60Hz)	0.06mA typ / 0.15mA typ / 0.20mA max				
	Power Factor 100VAC/200VAC	0.98 / 0.93				
Output	DC Output Voltage	12Vdc	15Vdc	24Vdc	30Vdc	48Vdc
	Output Current	25A	20A	12.5A	10A	6.3A
	Maximum Output Power	300W	300W	300W	300W	302.4W
	Line Regulation / Load Regulation [Max]	48mV / 96mV	60mV / 120mV	96mV / 150mV	120mV / 188mV	192mV / 300mV
	Ripple Noise (*2)	10mV typ				
Other Feature	OCV (*3)	> 110% (Shut down output)				
	OVP (*3)	> 115% (Shut down output)				
	Remote Sensing	Available				
	Remote Control	Available				
	Operation Indicator	LED lighting				
Mechanical	Cooling System	Forced air convection by external fan				
	Size (W x H x D)	110.8 x 46.8 x 193 mm / 4.36" x 1.84" x 7.60" inch (Without terminal stand)				
	Weight	950 g				
	Input & Output Terminal / Signal Terminal	Screw terminal / Connector				
Environmental Condition	Operating Temperature / Humidity (*4)	- 10℃ ~ 60℃ (With output) / 30%RH ~ 90%RH (Non Condensing)				
	Storage Temperature / Humidity	-20℃ ~ 85℃ / 10%RH ~ 95%RH (Non Condensing)				
	Vibration Resistance	19.6m/s² (10~55Hz 1minute Period 1hour for each X,Y,Z direction)				
	Shock Resistance	196.1m/s² 11ms 1time for X,Y,Z direction				
Isolation	Isolation Voltage	INPUT- FG : AC2KV for 1min Cut off current 20mA (Under normal temp & humidity condition) INPUT- OUTPUT : AC4KV 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-FG , INPUT-OUTPUT , OUTPUT-FG DC500V >100MΩ				
Others	Noise Immunity	EN61000-4-2, -3, -4, -5, -6, -8, -11				
	Conduction Noise	EN55022-B, FCC-B, VCCI-B				
	Safety Standard	UL60601-1, EN60601-1, CSA-C22.2 NO. 601.1-M90 UL62368-1 , CSA-C22.2, NO. 62368-1, EN62368-1				
	CE Marking	Low voltage directive				

(*1) Conditions: Ta=25 degree C Typical value at maximum output power (Inrush current value doesn't include part of within 0.1msec to input filter)

(*2) The typical ripple voltage in the standard specification is a value measured using 100MHz oscilloscope in the anechoic chamber under the JEITA measuring method (Condition: Ta=25℃, Vin=100Vac Typical value at rated output)

(*3) Upon over voltage or over current conditions, input power must be removed to allow unit reset to occur within a few minutes.

(*4) Derating is required by operating temperature. Follow the overload and specification in manual to avoid the damage of power supply.

※This power supply is intended to be used as a component of a larger system of electrical equipment.

User is responsible for the safe design when this product is to be integrated in the equipment which requires particularly high quality and reliability and there is a possibility to endanger persons or property by a failure or malfunction of this product.

