

**Switching Power Supply**  
300W Ultra Low Noise AC/DC Switching Power Supply

# PFS300 A



PFS300A is an Ultra Low Noise AC/DC Switching Power Supply Product designed for noise sensitive applications.

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 10mVp-p
  - Low Leakage Current 60uA to 200uA
  - Universal Input
  - Approved Safety Standards
  - Meet EMC Safety Standards
  - RoHS Free, Vinyl Chloride Free, Halogen Free (PCB)

**Model No.** PFS300A - XX\*  
\* Specify output voltage option 12/15/24/30/48

**Specification**

		Model Number	PFS300A-12	PFS300A-15	PFS300A-24	PFS300A-30	PFS300A-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	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		60uA @ 100Vac, 60Hz / 150uA @ 240Vac, 60Hz / 200uA @ 264V, 60Hz				
	Power Factor 100VAC/200VAC		0.98 / 0.93				
Output	DC Output Voltage		12V	15V	24V	30V	48V
	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	10mVp-p				
Other Feature	OCP	* 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				
Others	Input & Output Terminal / Signal Terminal		Screw terminal / Connector				
	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 UL60950-1, CSA-C22.2, NO. 60950-1, EN60950-1				
	CE Marking		Low voltage directive				

**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 : AC4KV 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.

# PFS300 A



## Mechanical Drawings

### TB101

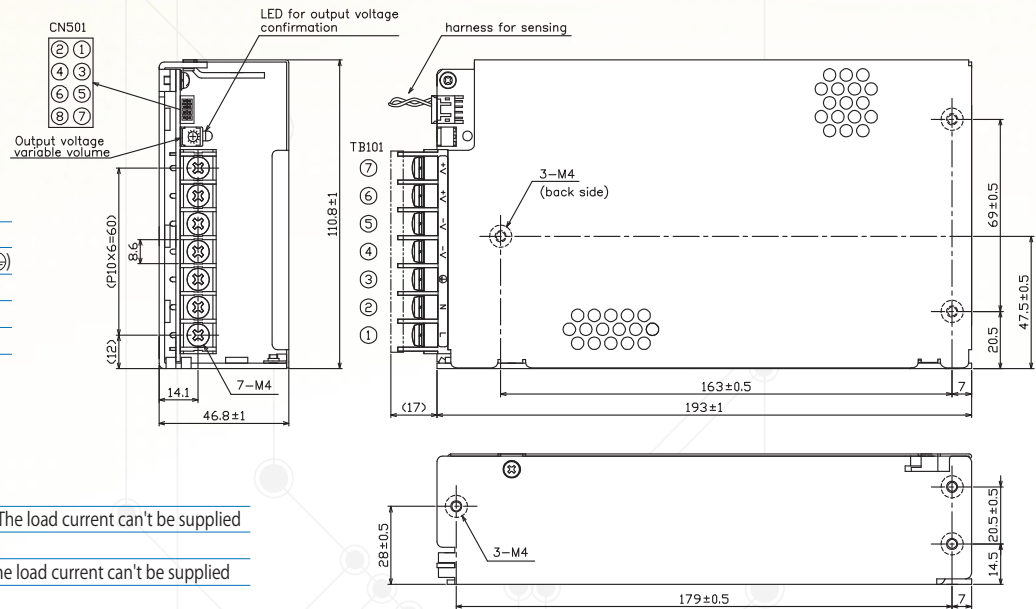
Pin#

- ① Input (L)
- ② Input (N)
- ③ Protective Earth-Terminal (⊕)
- ④ Output (-)
- ⑤ Output (-)
- ⑥ Output (+)
- ⑦ Output (+)

### CN501

Pin#

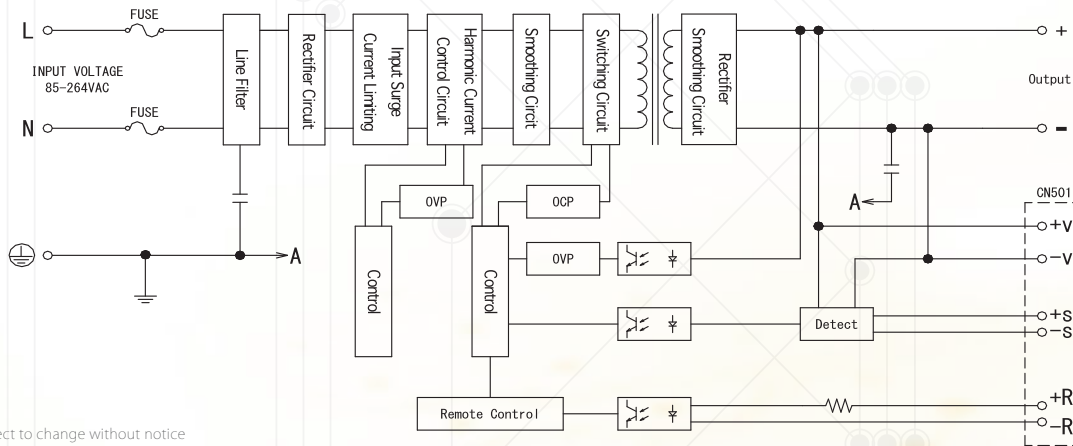
- ① +S:+Remote Sensing
- ② +V:+Output Voltage-Check \* The load current can't be supplied
- ③ -S:-Remote Sensing
- ④ -V:-Output Voltage-Check \* The load current can't be supplied
- ⑤ N.C
- ⑥ N.C
- ⑦ +R:+Remote ON/OFF
- ⑧ -R:-Remote ON/OFF



Connector P/N S8B-PHDSS (Manufacturer: JST)  
Housing PHDR-08VS

Terminal SPHD-001T-P0.5  
Crimping tool AP-K2N

## Block Diagram



\*Specifications subject to change without notice



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