Features:

- PCB Mountable Switching Power Module
- 4000VAC Input to Output 2MOPP Insulation
- Cooling by Free Air Convection
- High Efficiency up to 93.5%
- Active P.F.C. Power Factor >0.9
- <0.5W No Load Input Power
- ±5% Adjustable Voltage
- EMI for Both Class I (with PE) and Class II (without PE) Configurations
- Suitable for BF Applications with Appropriate System Consideration
- Remote ON/OFF Function
- 3-Year Product Warranty

Description:

The PAAM100 series of encapsulated, single output, through-hole AC/DC modules is specially designed for use in medical applications. This power dense 2.3" x 4.3" platform offers up to 100W of continuous throughput across a wide range of operating temperatures whilst maintaining low emissions and high efficiency. All models have remote ON/OFF and voltage adjustment features.

Model Number	Max Output Wattage	Output Voltage	Output Current (A) max	Output Line Regulation	Output Load Regulation	Ripple & Noise (mVp-p)	Max Capacitive Load (µF)	Average Efficiency @ 230VAC
PAAM100-12	100W	12V	8.33	±1%	±1%	120	6000	92.5%
PAAM100-14	100W	24V	4.2	±1%	±1%	240	2000	93%
PAAM100-18	100W	48V	2.1	±1%	±1%	480	330	93.5%

NOTES:

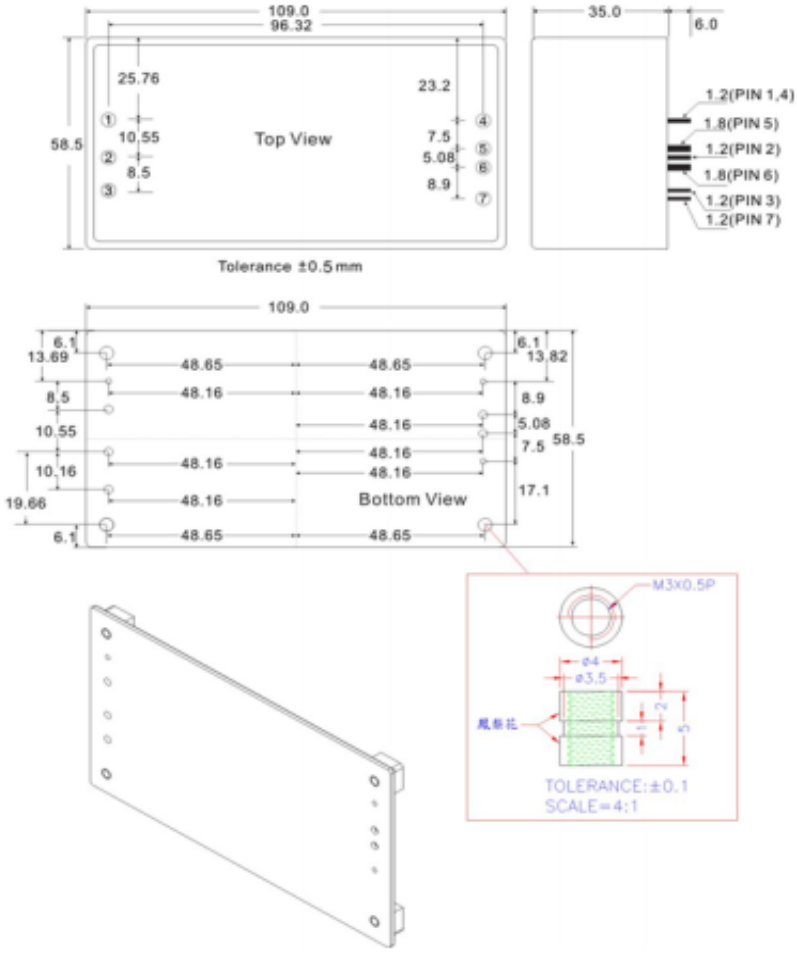
1. Ripple & Noise measured with 20MHz bandwidth with a 0.1µF ceramic & 47µF electrolytic capacitor across the output.
2. Hold-up Time measured at 90% Vout.
3. Please secure the power supply unit to your metal case by using the four screw holes in the corners for either Class I or Class II equipment
4. **Double pole, neutral fusing. Disconnect mains before servicing.**

Specifications	
Input	
Input Voltage	90-264 VAC
Input Frequency	47-63Hz
Input Current	<2.0 A max. (115 VAC) / < 1.0 A max. (230 VAC)
Inrush Current	<45 A max. (115 VAC) / < 90 A max. (230 VAC)
Leakage Current	<0.1mA / 264 VAC (Touch Current)
Power Factor	PF>0.9 at Full Load
Output	
Total Output Power	Up to 100W
Voltage Accuracy	±2%
Line Regulation	±1%
Load Regulation	±1%
Hold Up Time	10ms min.
Protection	
Overpower Protection	Auto-recovery, Hiccup mode
Over Voltage Protection	Auto-recovery
Over Temperature Protection	Auto-recovery
Short Circuit Protection	Protection level 1 (nominal): Continuous, Auto recovery
	Protection level 2 (instantaneous high current): Latch
Isolation	
Input—Output	4000VAC or 5656VDC
Input-PE	2000VAC or 2828VDC
Output-PE	1500VAC or 2121VDC
Environmental	
Operating Temperature	-30°C…+70°C (with derating)
Storage Temperature	-30°C…+85°C
Max Case Operating Temperature	Under 115 VAC 73°C, otherwise 80°C
Temperature Coefficient	±0.05%/°C
Altitude During Operation	5000m
Humidity	95% RH
MTBF	>250,000 h @ 25°C (MIL-HDBK-217F, Notice 1)
Atmospheric Pressure	56 kPa to 106 kPa
Vibration	IEC60068-2-27 (10~500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes)
Shock	IEC60068-2-6
General Specifications	
Dimensions	4.3 x 2.3 x 1.38 Inches (109.0x58.5x35.0mm) Tolerance ±0.5 mm
Weight	365g
Cooling Method	Free convection

Safety	
Approvals	UL/IEC/EN 60601 3.1rd Edition UL/IEC/EN 60950 AM2 UL/IEC/EN 62368-1
*Consult with TT Electronics for information on additional country safety approvals	
EMC	
EMI (Conducted Emissions) EMI (Radiated Emissions) EMS (Noise Immunity)	EN55011 Conducted Class B EN55011 Class I class B / Class II class A EN60601-1-2 4th edition
*EMC filtering occurs internally within the module	

MECHANICAL DIMENSION (Top View)

Diagrams



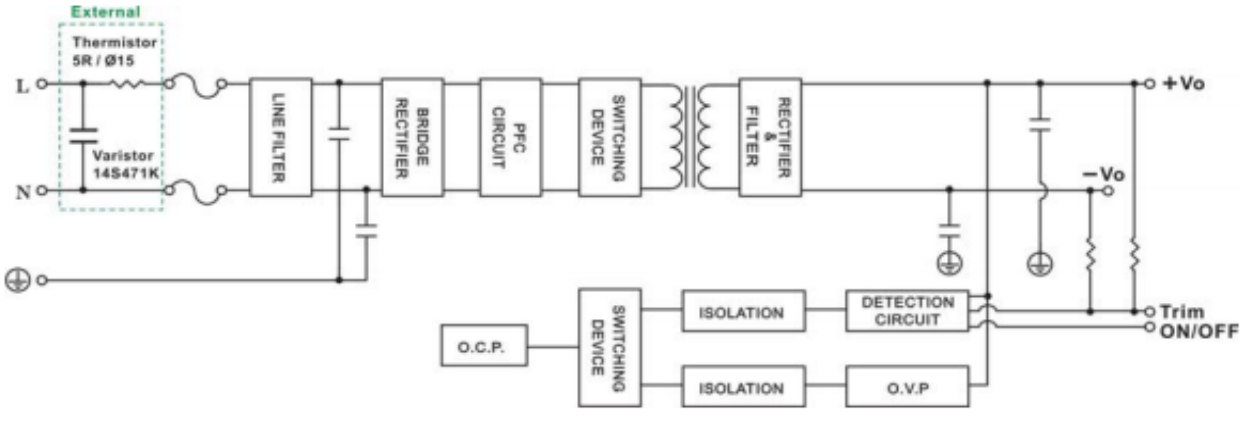
PIN#	Φ	Single
1	1.2±0.1%mm	AC IN (N)
2	1.2±0.1%mm	AC IN (L)
3	1.2±0.1%mm	PE
4	1.2±0.1%mm	ON / OFF (Provide +5Vdc Controlled)
5	1.8±0.1%mm	+DC OUT
6	1.8±0.1%mm	-DC OUT
7	1.2±0.1%mm	Trim

Remark:

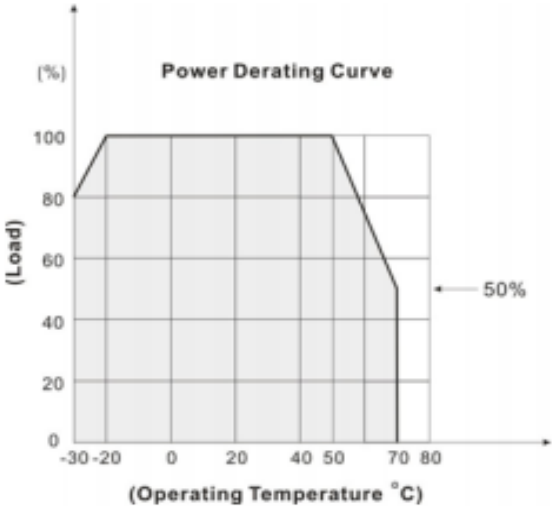
Please reserve the pin 4 hole on PCB.

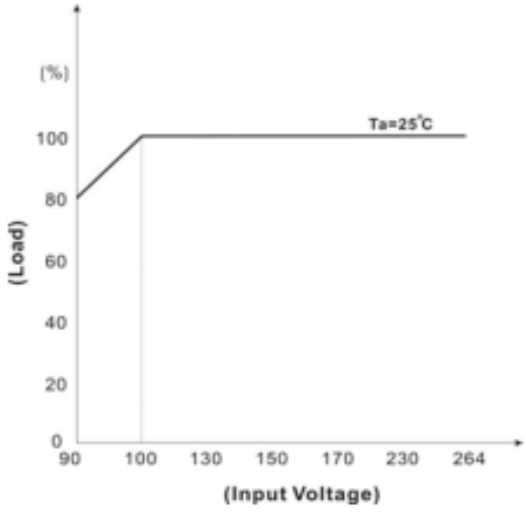
If the remote on/off function is not required, please connect the pin 4 circuit layout with pin6, or keep pin 4 floating.

BLOCK DIAGRAM



DERATING





TRIM

	12S			24S			48S		
Trim → -V	+5% 34KΩ	~	0% 10MΩ	+5% 37.4KΩ	~	0% 10MΩ	+5% 38KΩ	~	0% 10MΩ
Trim → +V	0% 10MΩ	~	-5% 106KΩ	0% 10MΩ	~	-5% 270KΩ	0% 10MΩ	~	-5% 640KΩ