Applied Motion Products
A MOONS' COMPANY

AC/DC Power Supply • PFC • 600W
Applied Motion Products Model: PS600A48

Features :

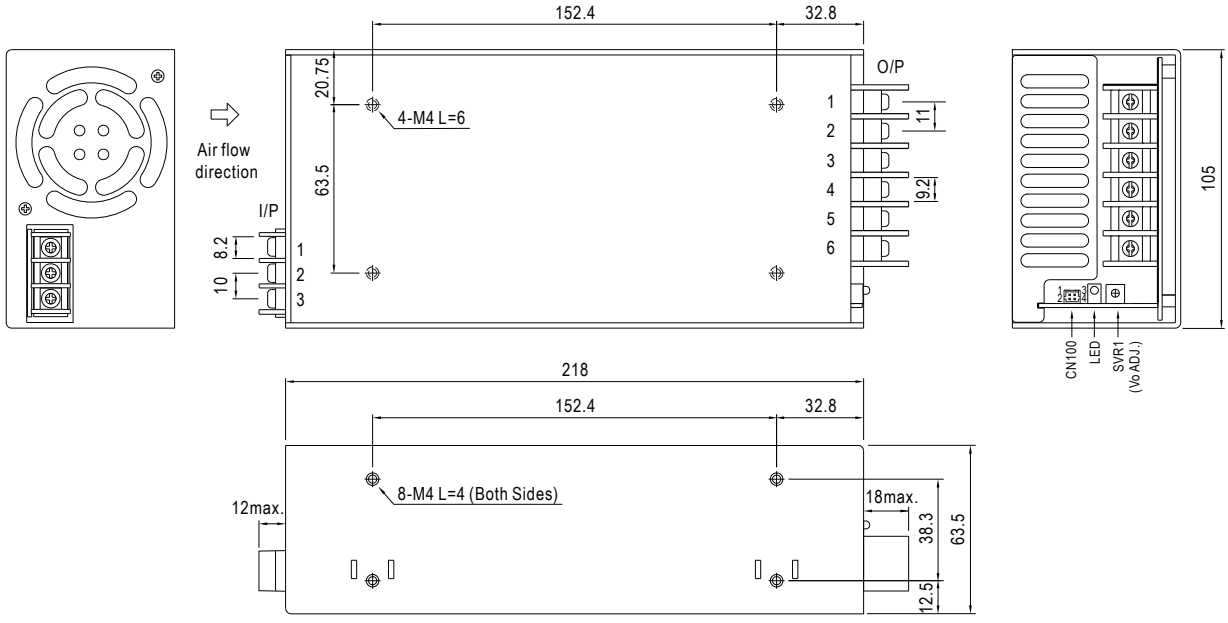
- Universal AC input / Full range
- Built-in active PFC function, PF>0.94
- High efficiency up to 89%
- Withstand 300VAC surge input for 5 seconds
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Built-in constant current limiting circuit
- Built-in cooling fan ON-OFF control
- Built-in DC OK signal
- Built-in remote sense function
- All using 105℃ long life electrolytic capacitors

SPECIFICATION

MODEL		PS600A48
OUTPUT	DC VOLTAGE	48V
	RATED CURRENT	13A
	CURRENT RANGE	0 ~ 13A
	RATED POWER	624W
	RIPPLE & NOISE (max.) Note.2	240mVp-p
	VOLTAGE ADJ. RANGE	40.8 ~ 55.2V
	VOLTAGE TOLERANCE Note.3	± 1.0%
	LINE REGULATION	± 0.2%
	LOAD REGULATION	± 0.5%
	SETUP, RISE TIME	1800ms, 50ms/230VAC 3600ms, 50ms/115VAC at full load
	HOLD UP TIME (Typ.)	16ms/230VAC 16ms/115VAC at full load
INPUT	VOLTAGE RANGE Note.5	85 ~ 264VAC 120 ~ 370VDC
	FREQUENCY RANGE	47 ~ 63Hz
	POWER FACTOR (Typ.)	PF>0.94/230VAC PF>0.99/115VAC at full load
	EFFICIENCY (Typ.)	89%
	AC CURRENT (Typ.)	7.6A/115VAC 3.6A/230VAC
	INRUSH CURRENT (Typ.)	35A/115VAC 70A/230VAC
	LEAKAGE CURRENT	<1.2mA / 240VAC
PROTECTION	OVERLOAD	105 ~ 135% rated output power
		Protection type : Constant current limiting, recovers automatically after fault condition is removed
	OVER VOLTAGE	57.6 ~ 67.2V
		Protection type : Shut down o/p voltage, re-power on to recover
	OVER TEMPERATURE	Shut down o/p voltage, recovers automatically after temperature goes down
FUNCTION	DC OK SIGNAL	PSU turn on : 3.3 ~ 5.6V ; PSU turn off : 0 ~ 1V
	FAN CONTROL (Typ.)	Load 35± 15% or RTH2 ≥ 50°C Fan on
ENVIRONMENT	WORKING TEMP.	-40 ~ +70°C (Refer to "Derating Curve")
	WORKING HUMIDITY	20 ~ 90% RH non-condensing
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH non-condensing
	TEMP. COEFFICIENT	± 0.03%/ (0 ~ 50°C)
	VIBRATION	10 ~ 500Hz, 5G 10min./1cycle, 60min. each along X, Y, Z axes
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL60950-1, TUV EN60950-1, EAC TP TC 004 approved
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C/ 70% RH
	EMC EMISSION	Compliance to EN55032 (CISPR32) Class B, EN61000-3-2,-3, EAC TP TC 020
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN61000-6-2, heavy industry level, criteria A, EAC TP TC 020
OTHERS	MTBF	140.6K hrs min. MIL-HDBK-217F (25°C)
	DIMENSION	218*105*63.5mm (L*W*H)
	PACKING	1.5Kg;8pcs/13Kg/1.34CUFT
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." 5. Derating may be needed under low input voltages. Please check the derating curve for more details. 6. The ambient temperature derating of 3.5 /1000m with fanless models and of 5 /1000m with fan models for operating altitude higher than 2000m(6500ft).	

■ Mechanical Specification

Case No. 977A Unit:mm



AC Input Terminal Pin No. Assignment

Pin No.	Assignment
1	AC/L
2	AC/N
3	FG ⏚

DC Output Terminal Pin No. Assignment

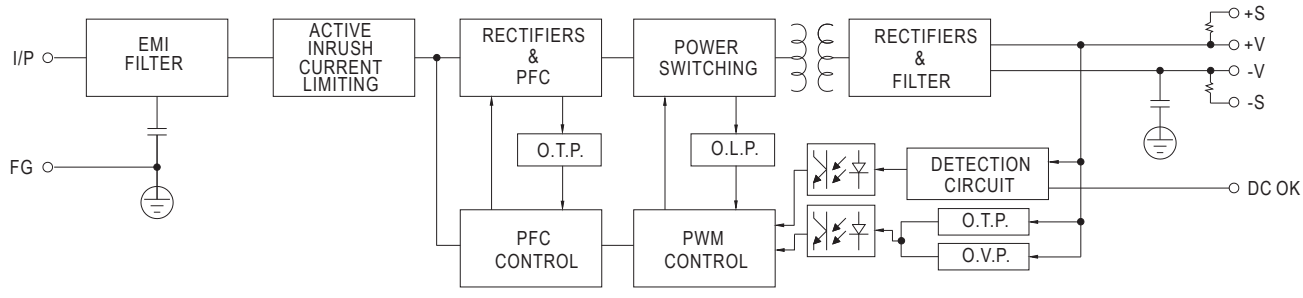
Pin No.	Assignment
1~3	-V
4~6	+V

Connector Pin No. Assignment(CN100) : HRS DF11-4DP-2DS or equivalent

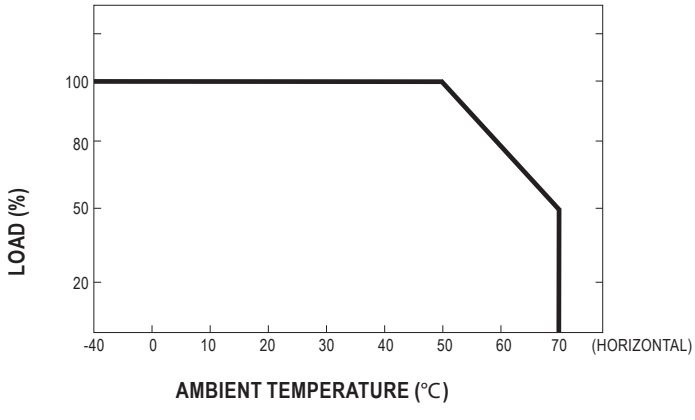
Pin No.	Assignment	Mating Housing	Terminal
1	DC-OK	HRS DF11-4DS or equivalent	HRS DF11-**SC or equivalent
2	GND		
3	+S		
4	-S		

■ Block Diagram

PWM fosc : 70KHz



■ Derating Curve



■ Output Derating VS Input Voltage