300W Single Output Switching Power Supply

HSN-300 series

■ Features :

- Low leakage current<1mA
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- Low profile:31mm
- Conformal coated
- LED indicator for power on
- Low cost, high power reliability
- 100% full load burn-in test
- 2 years warranty

SPECIFICATION

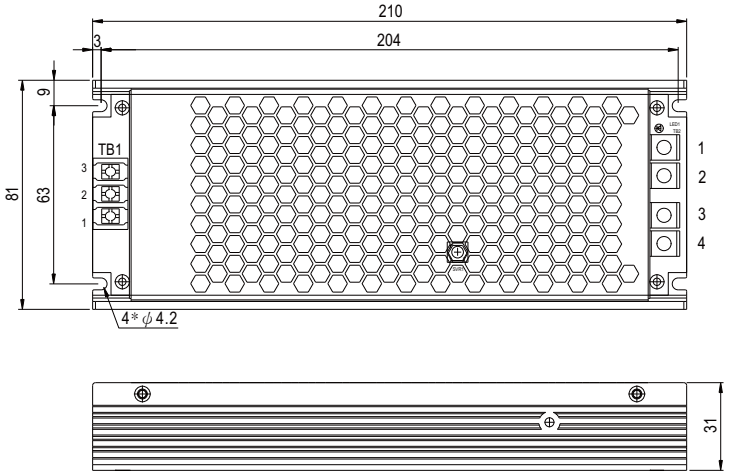
MODEL		HSN-300-4.2A	HSN-300-4.2B	HSN-300-5A	HSN-300-5B
OUTPUT	DC VOLTAGE	4.2V	4.2V	5V	5V
	RATED CURRENT Note.2	50A	60A	50A	60A
	CURRENT RANGE	0 ~ 50A	0 ~ 60A	0 ~ 50A	0 ~ 60A
	RATED POWER(convection)	210W	252W	250W	300W
	RIPPLE & NOISE (max.) Note.3	150mVp-p	150mVp-p	150mVp-p	150mVp-p
	VOLTAGE ADJ. RANGE	3.6~4.4V	3.6~4.4V	4.5~5.5V	4.5~5.5V
	VOLTAGE TOLERANCE Note.4	±3.0%	±3.0%	±3.0%	±3.0%
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±2.0%	±2.0%	±2.0%	±2.0%
	SETUP, RISE TIME	2500ms, 100ms/230VAC; 2500ms, 100ms/115VAC			
	HOLD UP TIME (Typ.)	10ms/230VAC; 8ms/115VAC at full load			
INPUT	VOLTAGE RANGE	90~132VAC or 254~373VDC	180~264VAC or 254~373VDC	90~132VAC or 254~373VDC	180~264VAC or 254~373VDC
	FREQUENCY RANGE	47 ~ 63Hz			
	EFFICIENCY (Typ.)	85%		86%	
	AC CURRENT (Typ.)	3.0A/230VAC; 5.0A/115VAC			
	INRUSH CURRENT (Typ.)	Cold start 90A/230VAC			
	LEAKAGE CURRENT	<1mA			
PROTECTION	OVERLOAD	A Type:105~170% rated output power B Type:105~140% rated output power			
		Protection type : Hiccup mode, recovers automatically after fault condition is removed			
	SHORT CIRCUIT	Protection type : Hiccup mode, recovers automatically after fault condition is removed			
	OVER VOLTAGE	4.7 ~ 5.7V		5.7 ~ 7.0V	
		Protection type : Hiccup mode, recovers automatically after fault condition is removed			
	OVER TEMPERATURE	Protection type : Shut down O/P voltage, recovers automatically after temperature goes down			
ENVIRONMENT	WORKING TEMP.	-20 ~ +70℃(Refer to "Derating Curve")			
	WORKING HUMIDITY	20 ~ 90% RH non-condensing			
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH			
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 60℃)			
	VIBRATION	10 ~ 500Hz, 3G 10min./1cycle, 60min. each along X, Y, Z axes			
SAFETY & EMC (Note 5)	SAFETY STANDARDS	UL60950-1 approved			
	WITHSTAND VOLTAGE	I/P-O/P:3.0KVAC 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℃/ 70%RH			
	EMC EMISSION	Refer to EN55022 (CISPR22) Class A			
	EMC IMMUNITY	Refer to EN61000-4-5; light industry level (surge 4KV), criteria A			
OTHERS	MTBF	226.4K hrs min. MIL-HDBK-217F (25℃)			
	DIMENSION	210*81*31mm (L*W*H)			
	PACKING	0.67kg; 20pcs/14.4kg/0.91CUFT			

NOTE

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.
2. Please refer to"static characteristics".
3. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
4. Tolerance : line regulation and load regulation.
5. Derating may be needed under low input voltages. Please check the static characteristics for more details.
6. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.

■ Mechanical Specification

CASE NO.:233A Unit:mm



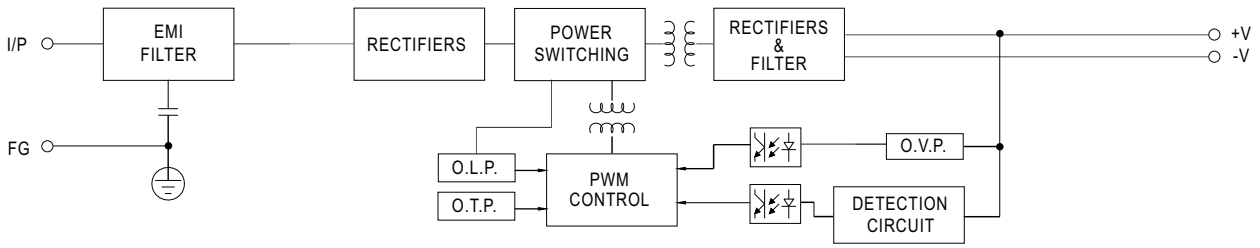
AC Input Terminal(TB1) pin NO. Assignment

Pin No.	Assignment	Terminal
1	AC/L	DG28C-B-03P-13-00AH
2	AC/N	
3	⏚	

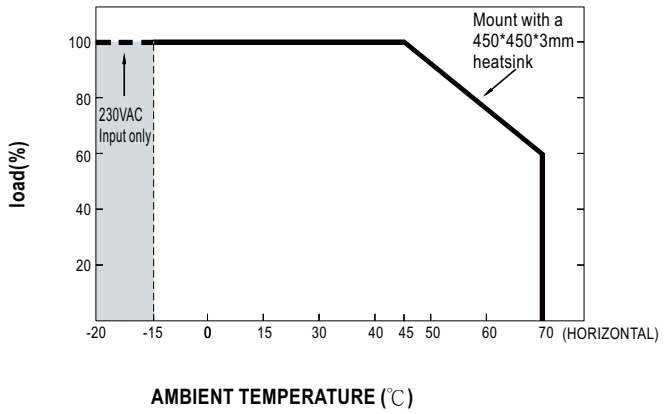
DC Output Terminal pin NO. Assignment

Pin No.	Assignment
1~2	-V
3~4	+V

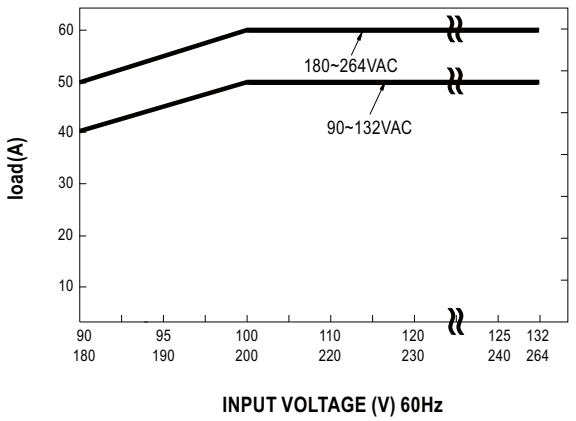
■ Block Diagram



■ Derating Curve



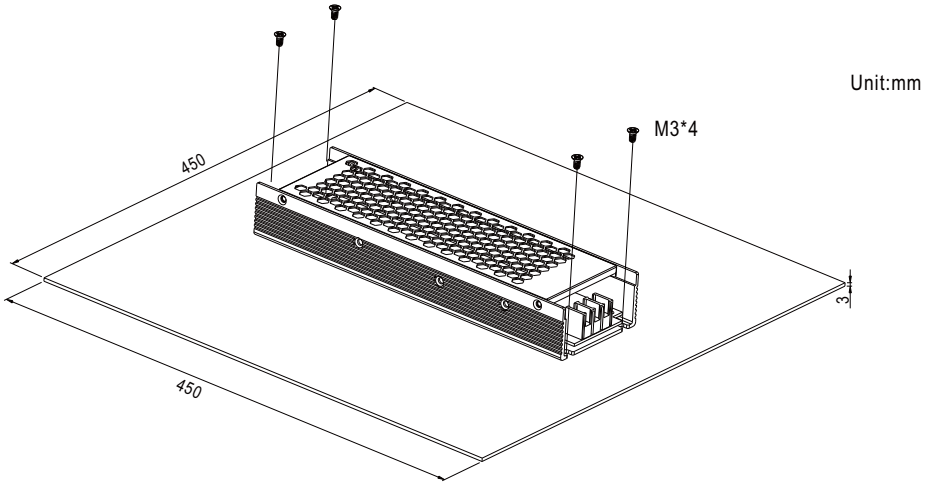
■ Static Characteristics



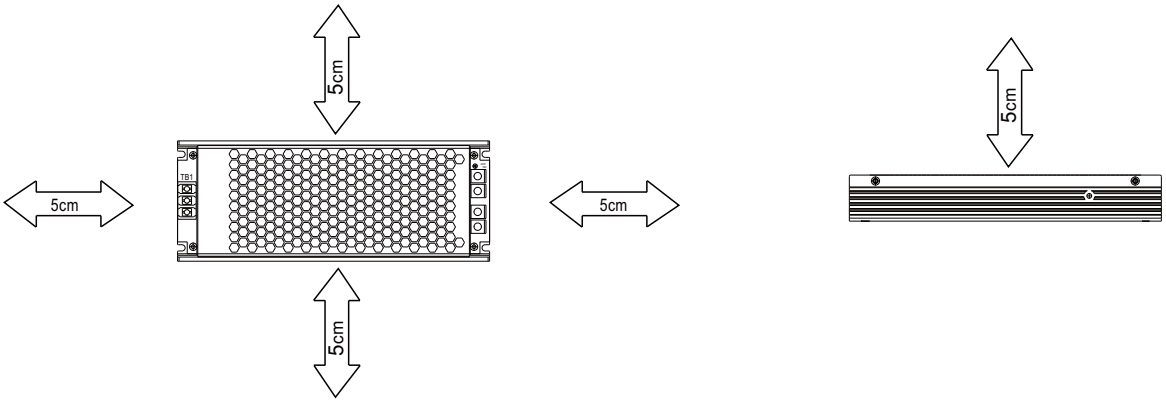
■ Installation

1.Operate with additional aluminum plate

In order to meet the"Derating Curve"and the "Static Characteristics" ,HSN-300 series must be installed onto an aluminum plate(or the cabinet of the same size) on the bottom.The size of the suggested aluminum plate is shown as below. And for optimizing thermal performance, the aluminum plate must have an even and smooth surface (or coated with thermal grease), and HSN-300 series must be firmly mounted at the center of the aluminum plate.



2.For heat dissipation, at least 5cm installation distance around the PSU should be kept, shown as below:



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Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.

Как с нами связаться

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