



200W Single Output with PFC Function

HSP-200 series



■ Features :

- Universal AC input / Full range
- Built-in active PFC function
- Low leakage current < 1.0mA
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Low profile: 31mm
- Conformal coated
- LED indicator for power on
- 3 years warranty



■ GTIN CODE

MW Search: <https://www.meanwell.com/serviceGTIN.aspx>



SPECIFICATION

MODEL		HSP-200-4.2	HSP-200-5
OUTPUT	DC VOLTAGE	4.2V	5V
	RATED CURRENT	40A	40A
	CURRENT RANGE	0 ~ 40A	0 ~ 40A
	RATED POWER (convection)	168W	200W
	RIPPLE & NOISE (max.) Note.2	150mVp-p	150mVp-p
	VOLTAGE ADJ. RANGE	3.6~4.4V	4.5~5.5V
	VOLTAGE TOLERANCE Note.3	±2.0%	±2.0%
	LINE REGULATION	±0.5%	±0.5%
	LOAD REGULATION	±1.0%	±1.0%
	SETUP, RISE TIME	2000ms, 200ms/230VAC	3000ms, 200ms/115VAC at full load
HOLD UP TIME (Typ.)	16ms/230VAC	16ms/115VAC at full load	
INPUT	VOLTAGE RANGE Note.4	90 ~ 264VAC	127 ~ 370VDC
	FREQUENCY RANGE	47 ~ 63Hz	
	POWER FACTOR (Typ.)	PF ≥ 0.95/230VAC	PF ≥ 0.98/115VAC at full load
	EFFICIENCY (Typ.)	88%	88.5%
	AC CURRENT (Typ.)	2.5A/115VAC	1.5A/230VAC
	INRUSH CURRENT (Typ.)	Cold start 70A/230VAC	3.0A/115VAC
LEAKAGE CURRENT	< 1.0mA / 240VAC	2.0A/230VAC	
PROTECTION	OVERLOAD	110~140% rated output power	
	SHORT CIRCUIT	Protection type : Hiccup mode, recovers automatically after fault condition is removed	
	OVER VOLTAGE	4.6 ~ 5.4V	5.6 ~ 7.0V
	OVER TEMPERATURE	Shut down O/P voltage, recovers automatically after fault condition is removed	
ENVIRONMENT	WORKING TEMP.	-30 ~ +70°C (Refer to "Derating Curve")	
	WORKING HUMIDITY	20 ~ 90% RH non-condensing	
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH	
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 60°C)	
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes	
SAFETY & EMC (Note 5)	SAFETY STANDARDS	UL60950-1, IEC/BS EN/EN62368-1, CCC GB4943, EAC TP TC 004 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°C / 70%RH	
	EMC EMISSION	Compliance to BS EN/EN55032 (CISPR32), GB9254, Class B, BS EN/EN61000-3-2, -3, GB17625.1, EAC TP TC 020	
OTHERS	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2, 3, 4, 5, 6, 8, 11; BS EN/EN55035, light industry level (surge 4KV), EAC TP TC 020	
	MTBF	1684.5K hrs min. Telcordia SR-332(Bellcore) ; 202.14K hrs min. MIL-HDBK-217F (25°C)	
	DIMENSION	210*62*31mm (L*W*H)	
NOTE	PACKING	0.52kg; 20pcs/ 11.4kg/0.76CUFT	
	<p>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 : line regulation and load regulation. 4. Derating may be needed under low input voltages. Please check the static characteristics for more details. 5. Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time. 6. 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 450mm*450mm 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." (as available on http://www.meanwell.com) ※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx</p>		

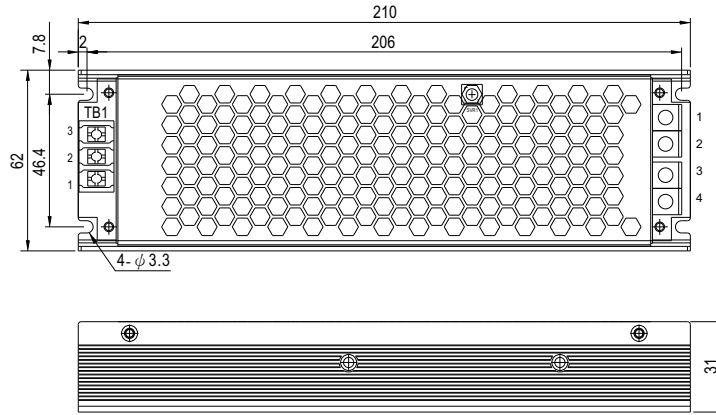


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■ Mechanical Specification

CASE NO.: 232B Unit:mm



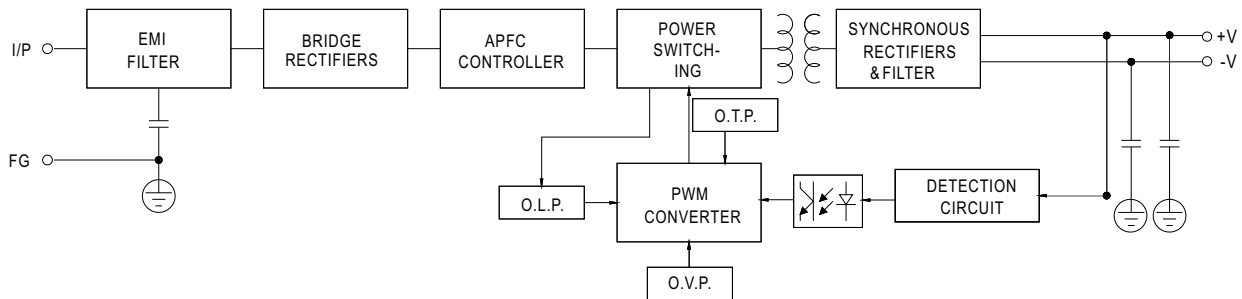
AC Input Terminal(TB1) pin NO. Assignment

Pin No.	Assignment	Terminal
1	AC/L	DG28C-B-03P
2	AC/N	
3	⊥	

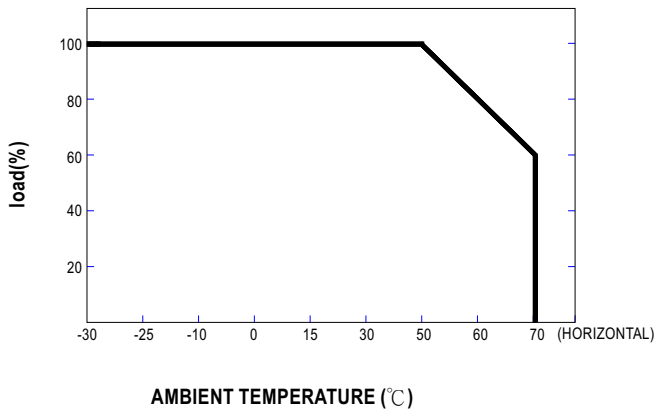
DC Output Terminal pin NO. Assignment

Pin No.	Assignment	Terminal
1,2	-V	K14-20A(H)
3,4	+V	

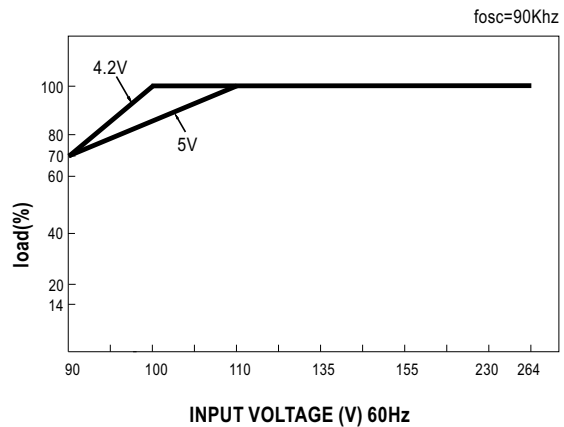
■ Block Diagram



■ Derating Curve



■ Static Characteristics





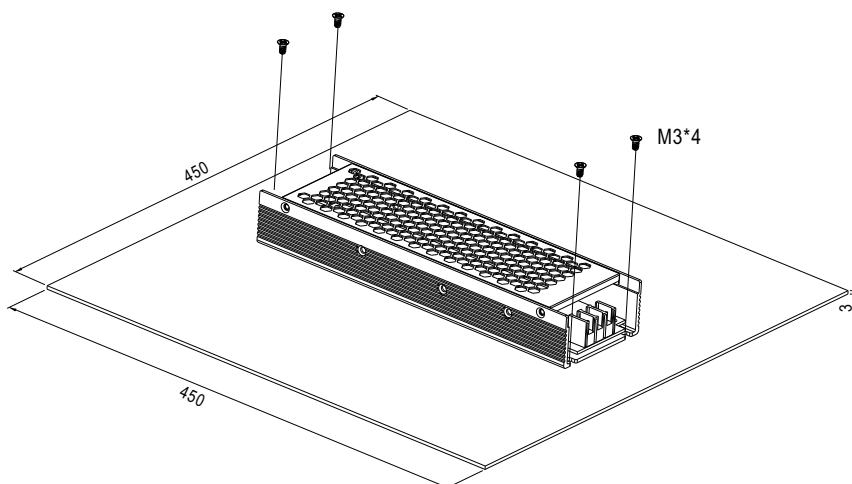
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■ **Installation**

1. Operate with additional aluminum plate

In order to meet the "Derating Curve" and the "Static Characteristics", HSP-200 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 HSP-200 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:

