

450W Single Output with PFC Function

HRP-450 series



Features :

- Universal AC input / Full range
- * Built-in active PFC function, PF>0.95
- High efficiency up to 89.5%
- * 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
- 5 years warranty



SPECIFICATION

MODEL		HRP-450-3.3	HRP-450-5	HRP-450-7.5	HRP-450-12	HRP-450-15	HRP-450-24	HRP-450-36	HRP-450-48		
OUTPUT	DC VOLTAGE	3.3V	5V	7.5V	12V	15V	24V	36V	48V		
	RATED CURRENT	90A	90A	60A	37.5A	30A	18.8A	12.5A	9.5A		
	CURRENT RANGE	0~90A	0~90A	0~60A	0~37.5A	0~30A	0~18.8A	0~12.5A	0~9.5A		
	RATED POWER	297W	450W	450W	450W	450W	451.2W	450W	456W		
	RIPPLE & NOISE (max.) Note.2	80mVp-p	80mVp-p	100mVp-p	120mVp-p	150mVp-p	150mVp-p	240mVp-p	240mVp-p		
	VOLTAGE ADJ. RANGE	2.8~3.8V	4.3~5.8V	6.8 ~ 9V	10.2 ~ 13.8V	13.5 ~ 18V	21.6~28.8V	28.8~39.6V	40.8 ~ 55.2\		
	VOLTAGE TOLERANCE Note.3	±2.0%	±2.0%	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%		
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.3%	±0.3%	±0.2%	±0.2%	±0.2%		
	LOAD REGULATION	±1.0%	±1.0%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%		
	SETUP, RISE TIME	1000ms, 100m	s/230VAC	2500ms, 100ms	s/115VAC at full	load		·			
	HOLD UP TIME (Typ.)	16ms/230VAC 16ms/115VAC at full load									
	VOLTAGE RANGE Note.5	85 ~ 264VAC 120 ~ 370VDC									
	FREQUENCY RANGE	47 ~ 63Hz									
	POWER FACTOR (Typ.)	PF>0.95/230V	AC PF>0.	99/115VAC at ful	llload						
INPUT	EFFICIENCY (Typ.)	80%	83%	86.5%	88%	89%	88%	89%	89.5%		
	AC CURRENT (Typ.)	5A/115VAC 2.4A/230VAC									
	INRUSH CURRENT (Typ.)	35A/115VAC 70A/230VAC									
	LEAKAGE CURRENT	<1.5mA/240VAC									
		105 ~ 135% ra	ted output pow	er							
	OVERLOAD	Protection type	e : Constant curi	ent limiting, recov	vers automatically	y after fault condi	tion is removed				
PROTECTION		3.96 ~ 4.62V	6 ~ 7V	9.4 ~ 10.9V	14.4 ~ 16.8V	18.8 ~ 21.8V	30~34.8V	41.4 ~ 48.6V	57.6 ~ 67.2		
	OVER VOLTAGE	Protection type	e : Shut down o	/p voltage, re-po	wer on to recove	er		·	·		
	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 20 \pm 10% or RTH2 \geq 50°C Fan on									
	WORKING TEMP.	-40 ~ +70 $^\circ\mathrm{C}$ (Refer to "Derating Curve")									
	WORKING HUMIDITY	20~90% RH non-condensing									
ENVIRONMENT	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH non-condensing									
	TEMP. COEFFICIENT	±0.03%/°C (0~50°C)									
	VIBRATION	10 ~ 500Hz, 5G 10min./1cycle, 60min. each along X, Y, Z axes									
	SAFETY STANDARDS	UL60950-1, TUV EN60950-1 approved									
SAFETY &	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC									
EMC	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH									
(Note 4)	EMC EMISSION	Compliance to EN55032 (CISPR32) Class B, EN61000-3-2,-3									
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN61000-6-2, heavy industry level, criteria A									
OTHERS	MTBF	139.9K hrs min. MIL-HDBK-217F (25°C)									
	DIMENSION	218*105*41mm (L*W*H)									
	PACKING	1.19Kg; 12pcs/	15.3Kg/0.82CU	FT							
NOTE	 Ripple & noise are measure Tolerance : includes set up The power supply is consid a 360mm*360mm metal pla perform these EMC tests, p Derating may be needed up 	Illy mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. ed at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. tolerance, line regulation and load regulation. Hered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on ate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to blease refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com) nder low input voltages. Please check the derating curve for more details. pasured at first cold start. Turning ON/OFF the power supply may lead to increase of the set up time.									



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Function Description of CN100

Pin No.	Function	Description
1	DC-OK	DC-OK Signal is a TTL level signal, referenced to pin2(DC-OK GND). High when PSU turns on.
2	GND	This pin connects to the negative terminal(-V). Return for DC-OK signal output.
3		Positive sensing. The +S signal should be connected to the positive terminal of the load. The +S and -S leads should be twisted in pair to minimize noise pick-up effect. The maximum line drop compensation is 0.5V.
4		Negative sensing. The -S signal should be connected to the negative terminal of the load. The -S and +S leads should be twisted in pair to minimize noise pick-up effect. The maximum line drop compensation is 0.5V.

Function Manual

1.Remote Sense

The remote sensing compensates voltage drop on the load wiring up to 0.5V.



2.DC-OK Signal

DC-OK signal is a TTL level signal. High when PSU turns on.

Between DC-OK(pin5) and GND(pin6)	Output Status	
3.3~5.6V	ON	
0 ~ 1V	OFF	





Fig 2.1