

## 300W Single Output with PFC Function

## HRPG-300 series



### Features :

- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- 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
- 1U low profile 41mm
- Built-in cooling fan ON-OFF control
- Built-in DC OK signal
- Built-in remote ON-OFF control
- Standby 5V@0.3A
- Built-in remote sense function
- No load power consumption<0.5W (Note.6)
- 5 years warranty

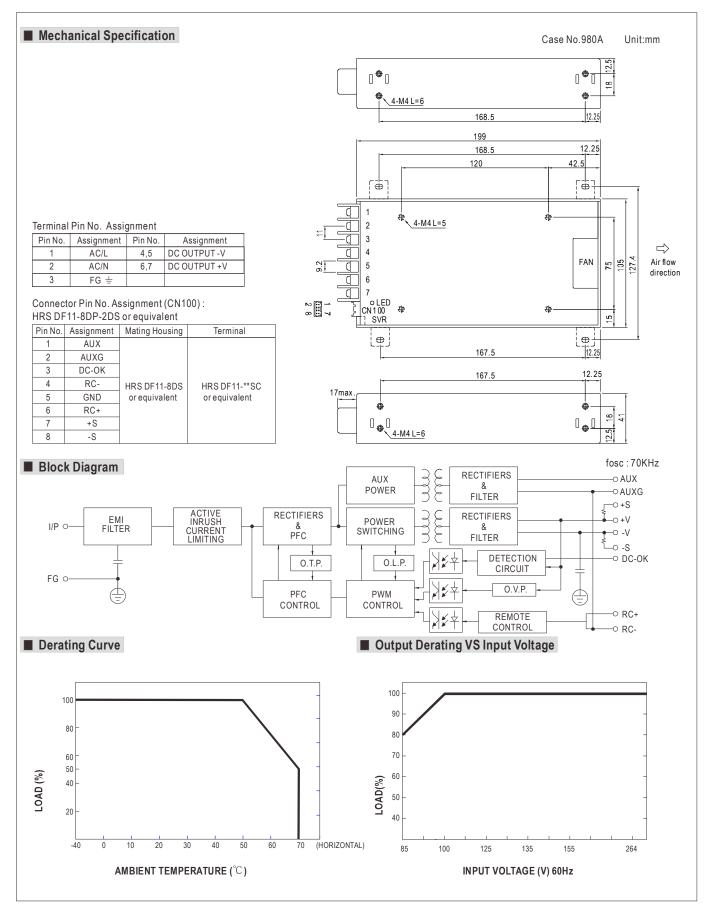


### **SPECIFICATION**

		HRPG-300-3.3	HRPG-300-5	HRPG-300-7.5	HRPG-300-12	HRPG-300-15	HRPG-300-24	HRPG-300-36	HRPG-300-48	
	DC VOLTAGE	3.3V	5V	7.5V	12V	15V	24V	36V	48V	
OUTPUT	RATED CURRENT	60A	60A	40A	27A	22A	14A	9A	7A	
	CURRENT RANGE	0~60A	0~60A	0~40A	0~27A	0~22A	0~14A	0~9A	0~7A	
	RATED POWER	198W	300W	300W	324W	330W	336W	324W	336W	
	RIPPLE & NOISE (max.) Note.2		90mVp-p	100mVp-p	120mVp-p	150mVp-p	150mVp-p	250mVp-p	250mVp-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 ~ 55.2V	
	VOLTAGE TOLERANCE Note.3		±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%	$\pm 0.5\%$	$\pm 0.5\%$	±0.2%	$\pm 0.2\%$	$\pm 0.2\%$	
	SETUP, RISE TIME									
	HOLD UP TIME (Typ.)	1000ms, 50ms/230VAC 2500ms, 50ms/115VAC at full load								
		16ms/230VAC 16ms/115VAC at full load								
		85~264VAC 120~370VDC								
	FREQUENCY RANGE	47 ~ 63Hz								
	POWER FACTOR (Typ.)	PF>0.95/230V/		9/115VAC at full						
INPUT	EFFICIENCY (Typ.)	80%	82%	86%	88%	88%	87%	88%	89%	
	AC CURRENT (Typ.)	4.5A/115VAC 2.5A/230VAC								
	INRUSH CURRENT (Typ.)	35A/115VAC 70A/230VAC								
	LEAKAGE CURRENT	<1.2mA/240VAC								
	OVERLOAD	105 ~ 135% rated output power								
	OVEREDAD	Protection type	: Constant curr	ent limiting, rec	overs automatic	ally after fault co	ondition is remov	ved		
		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\	
PROTECTION	OVER VOLTAGE	Protection type	: Shut down o/p	o voltage, re-pov	ver on to recove	r				
		90°C ±5°C (TS	SW1: detect on I	heatsink of powe	er transistor)					
	OVER TEMPERATURE	$100^{\circ}C \pm 5^{\circ}C$ for 3.3V,5V,7.5V ; $95^{\circ}C \pm 5^{\circ}C$ for others (TSW2: detect on heatsink of power diode)								
		Protection type : Shut down o/p voltage, recovers automatically after temperature goes down								
FUNCTION	5V STANDBY	5VSB : 5V@0.3A ; tolerance ± 5%, ripple : 50mVp-p(max.)								
	DC OK SIGNAL	PSU turns on : 3.3 ~ 5.6V ; PSU turns off : 0 ~ 1V								
	REMOTE CONTROL	RC+ / RC-: 4 ~ 10V or open = power on ; 0 ~ 0.8V or short = power off								
	FAN CONTROL (Typ.)	Load $35 \pm 15\%$ or RTH2 $\geq$ 50°C Fan on								
	WORKING TEMP.	$-40 \sim +70^{\circ}C$ (Refer to "Derating Curve")								
ENVIRONMENT	WORKING HUMIDITY	20 ~ 90% RH non-condensing								
	STORAGE TEMP., HUMIDITY									
	TEMP. COEFFICIENT	±0.03%/℃ (0~50℃)								
	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 EN55022 (CISPR22) Class B, EN61000-3-2,-3										
(Note 4)	EMC EMISSION									
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN61000-6-2, heavy industry level, criteria A								
	MTBF	176K hrs min. MIL-HDBK-217F (25°℃)								
OTHERS	DIMENSION	199*105*41mn	n (L*W*H)							
	PACKING	0.95Kg;15pcs/1	5.3Kg/0.69CUF	Т						
NOTE	<ol> <li>All parameters NOT special</li> <li>Ripple &amp; noise are measure</li> <li>Tolerance : includes set up</li> <li>The power supply is consid EMC directives. For guidan (as available on http://www.</li> <li>Derating may be needed ur</li> <li>No load power consumption</li> </ol>	ed at 20MHz of I tolerance, line n ered a compone ce on how to pe meanwell.com) nder low input vo	bandwidth by us egulation and lo ent which will be rform these EM oltages. Please	sing a 12" twister ad regulation. installed into a IC tests, please check the derati	d pair-wire termi final equipment. refer to EMI test ng curve for mo	nated with a 0.1 The final equipr ing of componer	uf & 47uf paralle nent must be re	-confirmed that i	t still meets	



# HRPG-300 series





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## Function Description of CN100

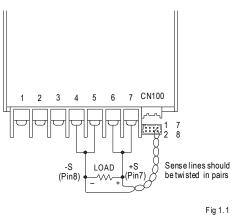
### Pin No. Function Description

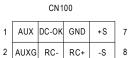
FIIINO.	i unction	Description
1	AUX	Auxiliary voltage output, 4.75~5.25V, reference to pin 2(AUXG). The maximum load current is 0.3A. This output is not controlled by the "remote ON/OFF control".
2	AUXG	Auxiliary voltage output ground. The signal return is isolated from the output terminals (+V & -V).
3	DC-OK	DC-OK signal is a TTL level signal, referenced to pin5(DC-OK GND). High when PSU turns on.
4	RC-	Remote control ground.
5	GND	This pin connects to the negative terminal(-V). Return for DC-OK signal output.
6	RC+	Turns the output on and off by electrical or dry contact between pin 4 (RC-), Short: Power OFF, Open: Power ON.
7		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.
8		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.

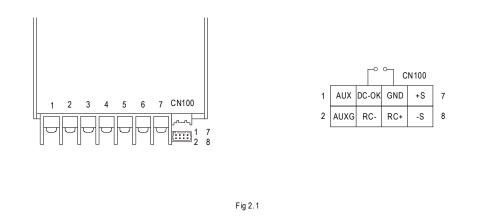






2.DC-OK Signal DC-OK signal is a TTL level signal. High when PSU turns on.

Between DC-OK(pin3) and GND(pin5)	Output Status
3.3 ~ 5.6V	ON
0 ~ 1V	OFF





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#### 3.Remote Control

The PSU can be turned ON/OFF by using the "Remote ON/OFF" function

Between RC+(pin6) and RC-(pin4)	Output Status
SW ON (Short)	OFF
SW OFF (Open)	ON

