



## 200W Single Output with PFC Function

# HRPG-200 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
- Cooling by free air convection
- \* Built-in constant current limiting circuit
- 1U low profile 38mm
- 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

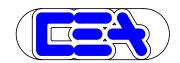






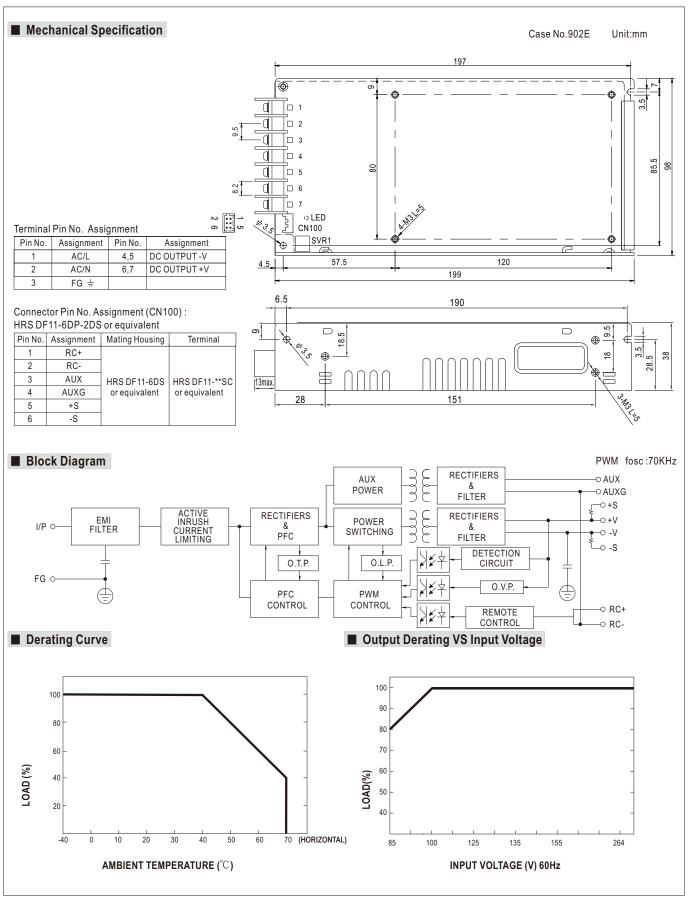
### **SPECIFICATION**

MODEL		HRPG-200-3.3	HRPG-200-5	HRPG-200-7.5	HRPG-200-12	HRPG-200-15	HRPG-200-24	HRPG-200-36	HRPG-200-48		
	DC VOLTAGE	3.3V	5V	7.5V	12V	15V	24V	36V	48V		
ОИТРИТ	RATED CURRENT	40A	35A	26.7A	16.7A	13.4A	8.4A	5.7A	4.3A		
	CURRENT RANGE	0 ~ 40A	0 ~ 35A	0 ~ 26.7A	0 ~ 16.7A	0 ~ 13.4A	0.4A 0 ~ 8.4A	0~5.7A	0 ~ 4.3A		
	RATED POWER	132W	175W	200.3W	200.4W	201W	201.6W	205.2W	206.4W		
	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%	±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	±1.5%	±1.0%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%		
	SETUP, RISE TIME	1000ms, 50ms/230VAC 2500ms, 50ms/115VAC at full load									
	HOLD UP TIME (Typ.)	16ms/230VAC 16ms/115VAC at full load									
INPUT	VOLTAGE RANGE Note.5	.5 85~264VAC 120~370VDC									
	FREQUENCY RANGE	47 ~ 63Hz									
	POWER FACTOR (Typ.)	PF>0.95/230V/	AC PF>0.9	9/115VAC at full	load						
	EFFICIENCY (Typ.)	80%	84%	86%	88%	88%	88%	89%	89%		
	AC CURRENT (Typ.)	2.1A/115VAC 1.1A/230VAC									
	INRUSH CURRENT (Typ.)	35A/115VAC 70A/230VAC									
	LEAKAGE CURRENT	<1.2mA / 240V/	AC								
	OVERLOAD	105 ~ 135% rated output power									
		Protection type: Constant current limiting, recovers automatically after fault condition is removed									
PROTECTION	OVER VOLTAGE	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 ~ 67.2V		
		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	5V STANDBY	5VSB:5V@0.3A; tolerance±5%, ripple:50mVp-p(max.)									
	REMOTE CONTROL	RC+/RC-: 4~10V or open = power on; 0~0.8V or short = power off									
	WORKING TEMP.	-40 ~ +70°C (Refer to "Derating Curve")									
	WORKING HUMIDITY	20 ~ 90% RH non-condensing									
ENVIRONMENT	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH									
	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, heavy industry level, criteria A									
	MTBF	189.1K hrs min. MIL-HDBK-217F (25°C)									
OTHERS	DIMENSION	199*98*38mm (L*W*H)									
JIILKO	PACKING	0.77Kg; 18pcs/		•							
NOTE	1. All parameters NOT special 2. Ripple & noise are measure 3. Tolerance : includes set up 4. The power supply is consid a 360mm*360mm metal pla perform these EMC tests, p 5. Derating may be needed ur	parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.  The end of the control of the c									





## HRPG-200 series







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### ■ Function Description of CN100

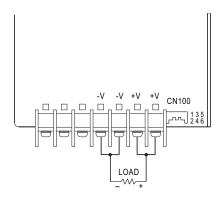
Pin No.	Function	Description
1	RC+	Turns the output on and off by electrical or dry contact between pin 2 (RC-). Short: Power OFF, Open: Power ON.
2	RC-	Remote control ground.
3		Auxiliary voltage output, 4.75~5.25V, reference to pin 4(AUXG). The maximum load current is 0.3A. This output is not controlled by the "remote ON/OFF control".
4	AUXG	Auxiliary voltage output ground. The signal return is isolated from the output terminals (+V & -V).
5		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.
6		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 Control

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

Between RC-(pin2) and RC+(pin1)	Output Status		
SW ON (Short)	OFF		
SW OFF (Open)	ON		

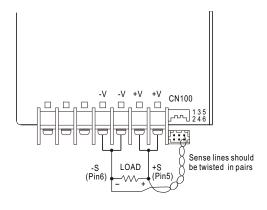


CN100 RC+ AUX +S √ SW 2 RC-AUXG -S 6

Fig 1.1

#### 2.Remote Sense

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



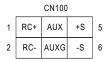


Fig 2.1

