



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

User's Manual



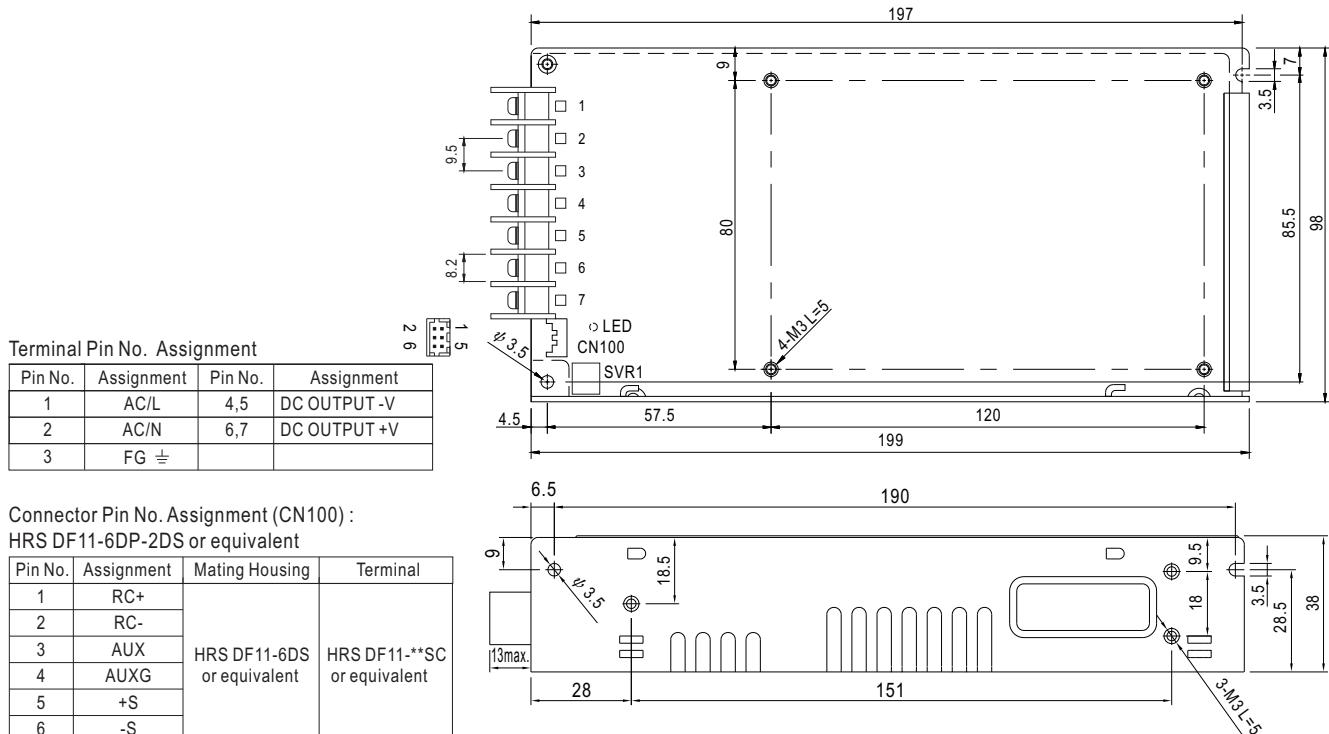
SPECIFICATION



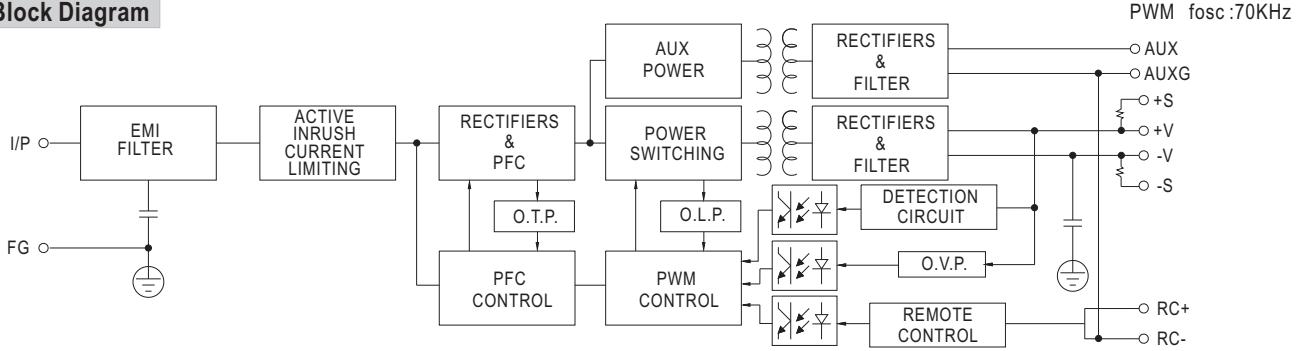
MODEL	HRPG-200-3.3	HRPG-200-5	HRPG-200-7.5	HRPG-200-12	HRPG-200-15	HRPG-200-24	HRPG-200-36	HRPG-200-48
OUTPUT	DC VOLTAGE	3.3V	5V	7.5V	12V	15V	24V	36V
	RATED CURRENT	40A	35A	26.7A	16.7A	13.4A	8.4A	5.7A
	CURRENT RANGE	0 ~ 40A	0 ~ 35A	0 ~ 26.7A	0 ~ 16.7A	0 ~ 13.4A	0 ~ 8.4A	0 ~ 5.7A
	RATED POWER	132W	175W	200.3W	200.4W	201W	201.6W	205.2W
	ripple & noise (max.) Note.2	80mVp-p	90mVp-p	100mVp-p	120mVp-p	150mVp-p	150mVp-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
	VOLTAGE TOLERANCE Note.3	±2.0%	±2.0%	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.3%	±0.3%	±0.2%	±0.2%
	LOAD REGULATION	±1.5%	±1.0%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%
	SETUP, RISE TIME	1000ms, 50ms/230VAC	2500ms, 50ms/115VAC at full load					
INPUT	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>0.95/230VAC	PF>0.99/115VAC at full load					
	EFFICIENCY (Typ.)	80%	84%	86%	88%	88%	88%	89%
	AC CURRENT (Typ.)	2.1A/115VAC	1.1A/230VAC					
	INRUSH CURRENT (Typ.)	35A/115VAC	70A/230VAC					
PROTECTION	LEAKAGE CURRENT	<1.2mA / 240VAC						
	OVERLOAD	105 ~ 135% rated output power						
		Protection type : Constant current limiting, recovers automatically after fault condition is removed						
	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
FUNCTION	OVER TEMPERATURE	Protection type : Shut down o/p voltage, re-power on to recover						
	5V STANDBY	Shut down o/p voltage, recovers automatically after temperature goes down						
	REMOTE CONTROL	5VSB : 5V@0.3A ; tolerance ±5%, ripple : 50mVp-p(max.)						
ENVIRONMENT	WORKING TEMP.	RC+/RC- : 4 ~ 10V or open = power on ; 0 ~ 0.8V or short = power off						
	WORKING HUMIDITY	-40 ~ +70°C (Refer to "Derating Curve")						
	STORAGE TEMP., HUMIDITY	20 ~ 90% RH non-condensing						
	TEMP. COEFFICIENT	-40 ~ +85°C, 10 ~ 95% RH						
	VIBRATION	±0.03%/°C (0 ~ 50°C)						
SAFETY & EMC (Note 4)	WORKING TEMP.	10 ~ 500Hz, 5G 10min./cycle, 60min. each along X, Y, Z axes						
	SAFETY STANDARDS	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC						
	WITHSTAND VOLTAGE	Compliance to BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2,-3, EAC TP TC 020						
	ISOLATION RESISTANCE	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55024, heavy industry level, criteria A, EAC TP TC 020						
	EMC EMISSION	Derating may be needed under low input voltages. Please check the derating curve for more details.						
OTHERS	EMC IMMUNITY	Derating may be needed under low input voltages. Please check the derating curve for more details.						
	MTBF	189.1K hrs min. MIL-HDBK-217F (25°C)						
	DIMENSION	199*98*38mm (L*W*H)						
NOTE	PACKING	0.77Kg; 18pcs/14.9Kg/0.87CUFT						
	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 : includes set up tolerance, line regulation and load regulation. 4. 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 360mm*360mm 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) 5. Derating may be needed under low input voltages. Please check the derating curve for more details. 6. No load power consumption<0.5W when RC+ & RC- (CN100 pin1,2) 0 ~ 0.8V or short. 7. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft). ※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx							

■ Mechanical Specification

Case No. 902E Unit:mm

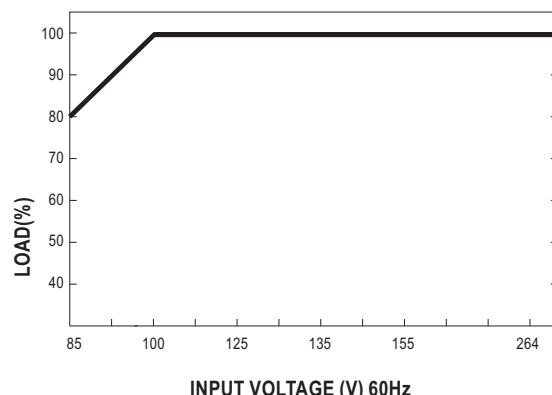
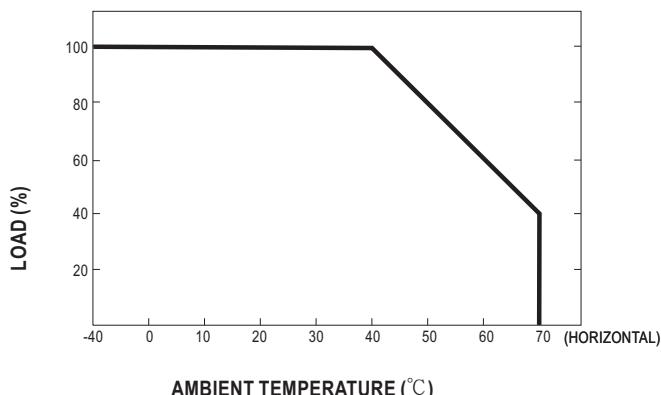


■ Block Diagram



■ Derating Curve

■ Output Derating VS Input Voltage





200W Single Output with PFC Function

HRPG-200 series

■ 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	AUX	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	+S	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	-S	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

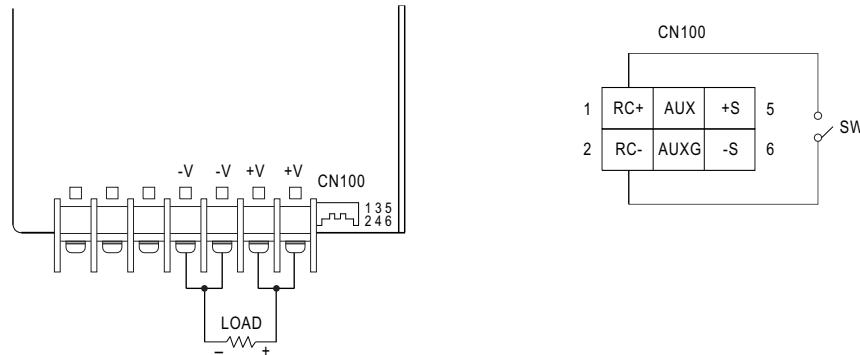


Fig 1.1

2. Remote Sense

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

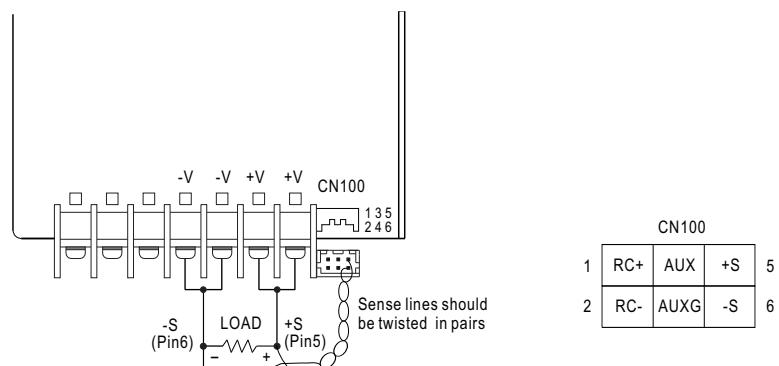


Fig 2.1