

RSP-500 Series

500W Single Output Enclosed Power Supplies



Case No: 8916GX
230 x 127 x 40.5 mm

Features

- Universal AC input / Full range
- Built-in active PFC function, PF >0.95
- Protections: Short circuit / Overload / Over Voltage / Over temperature
- Forced air Cooling by built-in DC Fan
- 1U low profile 40.5mm
- High Efficiency up to 90.5%
- Built-in remote ON-OFF control
- Built-in remote sense function
- LED indicator for power on
- 3 years warranty



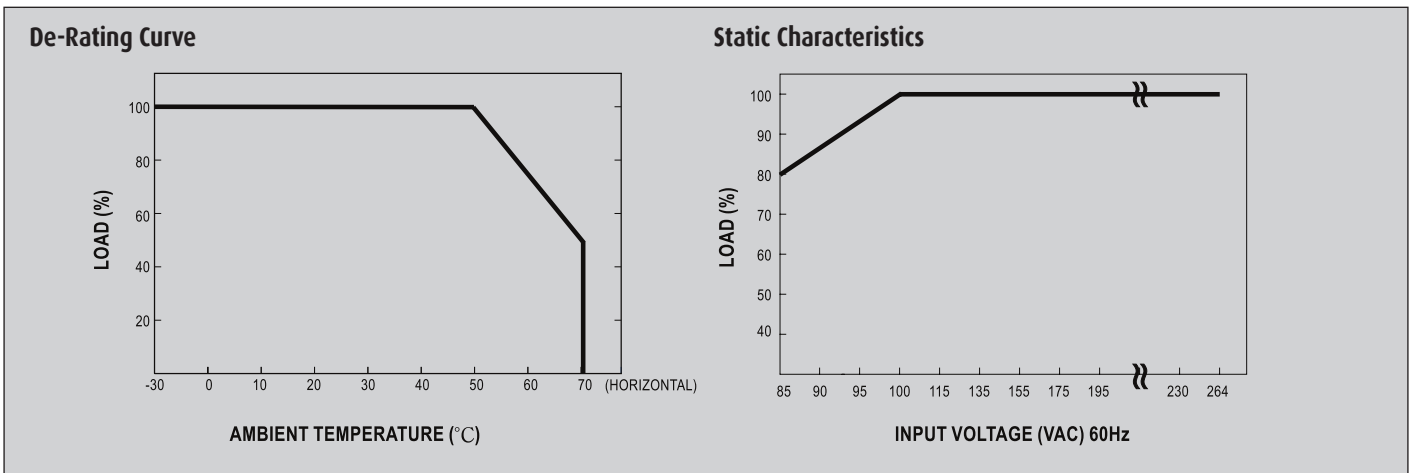
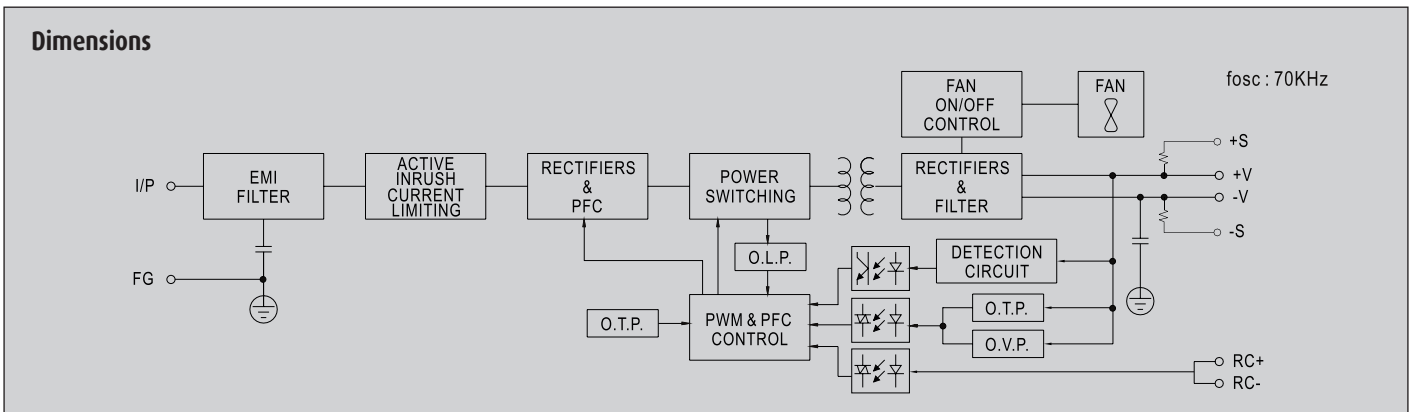
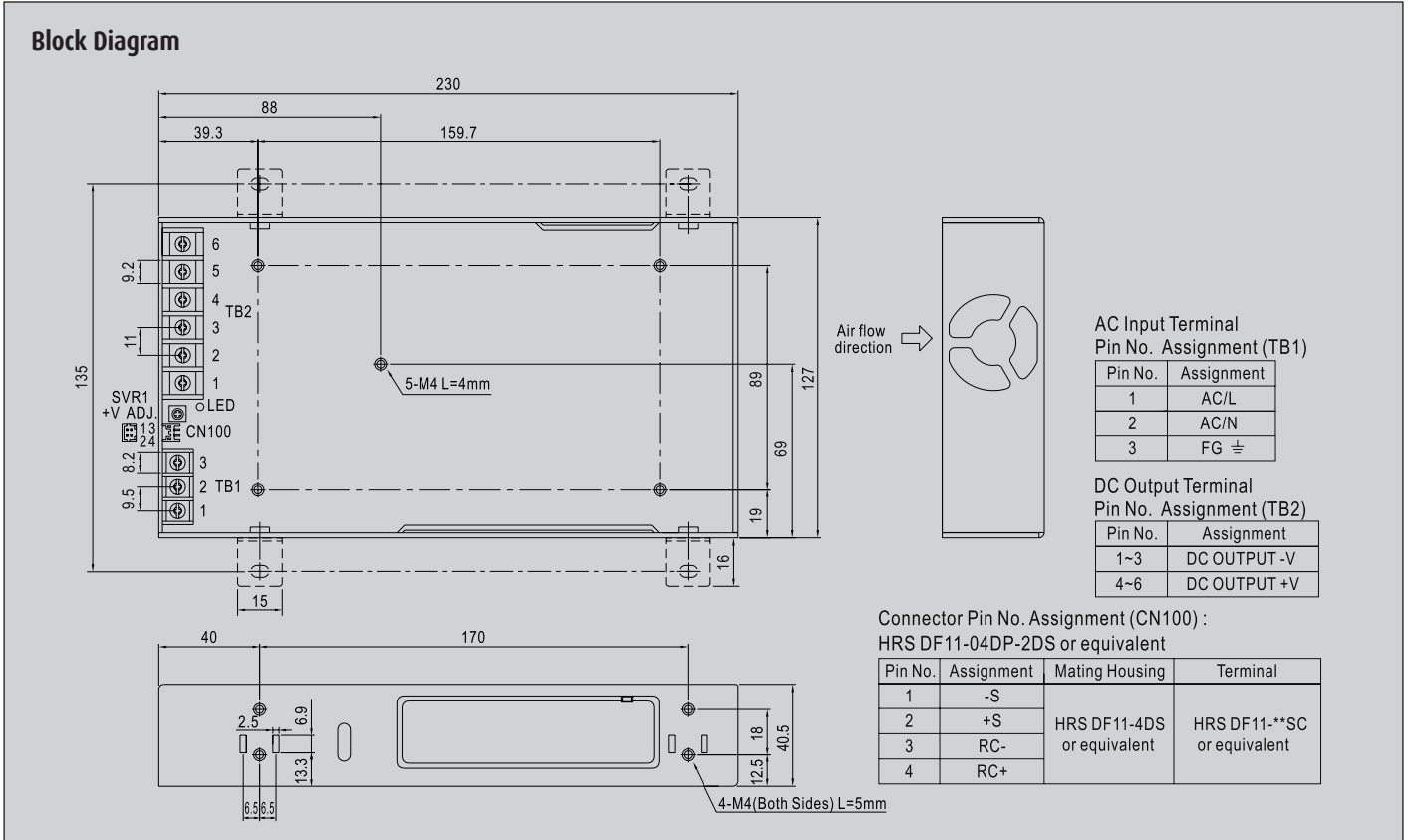
Specification

INPUT	Voltage	85V ~ 264VAC 120 ~ 370VDC							
	Frequency	47 ~ 63 Hz							
	Power Factor	PF>0.95/230VAC PF>0.98/115VAC at full load							
	Efficiency	81%	83%	83%	89%	88%	89%	89.5%	90.5%
	Current	4.2A/115VAC	2.1A/230VAC	5.3A/115VAC	2.65A/230VAC				
	Inrush Current (Typ.)	20A/115VAC	40A/230VAC						
	Leakage Current	<2mA/240VAC							
OUTPUT	MODEL No.	RSP-500-3.3	RSP-500-4	RSP-500-5	RSP-500-12	RSP-500-15	RSP-500-24	RSP-500-27	RSP-500-48
	Voltage	3.3V	4V	5V	12V	15V	24V	27V	48V
	Rated Current	90A	90A	90A	41.7A	33.4A	21A	18.6A	10.5A
	Current Range	0~90A	0~90A	0~90A	0~41.7A	0~33.4A	0~21A	0~18.6A	0~10.5A
	Rated Power	297W	360W	450W	500.4W	501W	504W	502.2W	504W
	Ripple Noise MAX.	120mVp-p	120mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150Vp-p	150mVp-p
	Voltage Adj. Range	2.8~3.6V	3.6~4.3V	4.5~5.5V	10~13.2V	13.5~18V	20~26.4V	26~30V	41~56V
	Voltage Tolerance	± 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	1500ms, 80ms/230VAC 3000ms, 80ms/115VAC at full load at full load							
Holdup Time (Typ.)	18ms/230VAC 14ms/115VAC at full load								
PROTECTION	Overload	105~130% rated output power Protection Type: Constant current limiting, recovers automatically after fault condition is removed							
	Over Voltage	3.8~5.4V	4.5~5.3V	5.75~6.75V	13.8~16.2V	18.8~21.8V	27.6~32.4V	32.9~38.3V	58.4~68V
	Over Temperature	Shut down o/p voltage, recovers automatically after temperature goes down							
FUNCTION	Remote Control	POWER ON: open or 0~0.8VDC between RC+(Pin4) & RC- (Pin3) on CN100 POWER OFF: 4~10VDC between RC+ (Pin4) & RC-(Pin3) on CN100							
	Remote Sense	Compensate voltage drop on the load wiring up to 0.3V							
	Fan Control	RTH2≥50°C±10°C Fan on; RTH2≤40°C±10°C Fan off							
	Working Temp.	-30~+70°C (Refer to "Derating Curve")							
ENVIRONMENT	Working Humidity	20~90% RH non-condensing							
	Storage Temp., Humidity	-40~+85°C, 10~95%RH							
	Temp. Co-efficient	±0.03% / °C (0~50°C)							
	Vibration	10~500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes							
SAFETY	Withstand Voltage	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC							
	Isolation Resistance	I/P-OP, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C/70% RH							
	Safety Standards	UL60950-1, TUV EN60950-1 approved							
EMC	EMC Emission	Compliance to EN55022 (CISPR22) Class B, EN61000-3-2-3							
	EMC Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN61000-6-2, EN61204-3 Heavy industry level, criteria A							
OTHERS	M.T.B.F.	1.87K hrs min. MIL-HDBK-217F (25°C)							
	Packaging	1.3Kg; 9pcs/12.7Kg/0.7CUFT							

1. All parameters not specially mentioned are measured at 230VAC input, rated load and 25°C or ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminates with a 0.1uF & 47uF parallel capacitor.
3. Tolerance: Includes set up tolerance, line regulation and load regulation.
4. Fan always on for 3.3~5V, Fan ON/OFF control for 12~48V.
5. Derating maybe needed under low input voltages. Please check the derating curve for more details.
6. The power supply is considered a component of end-equipment. The end-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.'
7. The ambient temperature of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude of higher than 2000m (6500ft).

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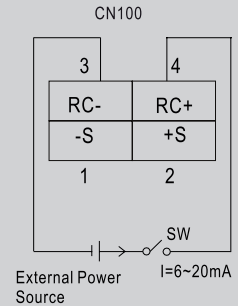
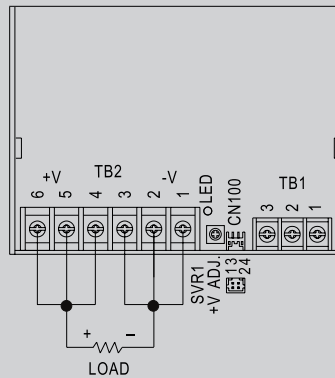
Function Description

Pin No.	Function	Description
1	-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 0.3V.
2	+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 0.3V.
3	RC-	Return for RC+ signal input.
4	RC+	Turns the output on and off by electrical or dry contact between pin 4 (RC+) and pin 3 (RC-). 0~0.8VDC or open: Power ON, 4~10VDC: Power OFF.

1. Remote Control

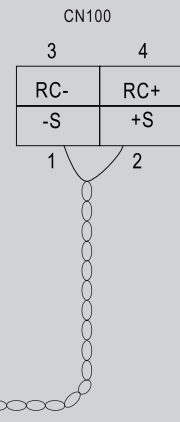
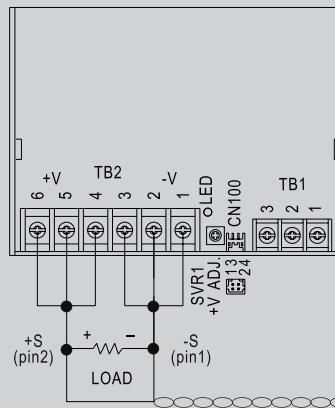
The PSU can be turned ON/OFF by using the "Remote Control" function.

Between RC-(pin3) and RC+(pin4) on CN100	PSU Status
SW OFF (0 ~ 0.8VDC) or open	ON
SW ON (4 ~ 10V)	OFF



2. Remote Sense

The remote sensing compensates voltage drop on the load wiring up to 0.3V



Sense lines should be twisted in pairs