



2000W Power Supply with Single Output

**RSP-2000 series**

Dimension					
L	*	W	*	H	
295	*	127	*	41 (1U)	mm
11.6	*	5	*	1.61 (1U)	inch



## ■ Features

- Universal AC input / Full range
- Built-in active PFC function
- High efficiency up to 92%
- Forced air cooling by built-in DC fan
- Output voltage programmable
- Active current sharing up to 8000W (3+1)
- Built-in remote ON-OFF control / remote sense / auxiliary power / DC OK signal / OTP alarm signal
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Optional conformal coating
- 5 years warranty

## ■ Applications

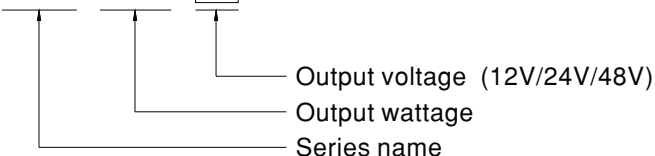
- Factory control or automation apparatus
- Test and measurement instrument
- Laser related machine
- Burn-in facility
- Digital broadcasting
- RF application

## ■ Description

RSP-2000 is a 2KW single output enclosed type AC/DC power supply with 1U low profile. This series operates for 90~264VAC input voltage and offers the models with the DC output mostly demanded from the industry. Each model is cooled by the built-in fan with fan speed control, working for the temperature up to 70°C. Moreover, RSP-2000 provides vast design flexibility by equipping various built-in functions such as the output programming, active current sharing, remote ON-OFF control, auxiliary power, etc.

## ■ Model Encoding / Order Information

**RSP - 2000 - 48**



## SPECIFICATION

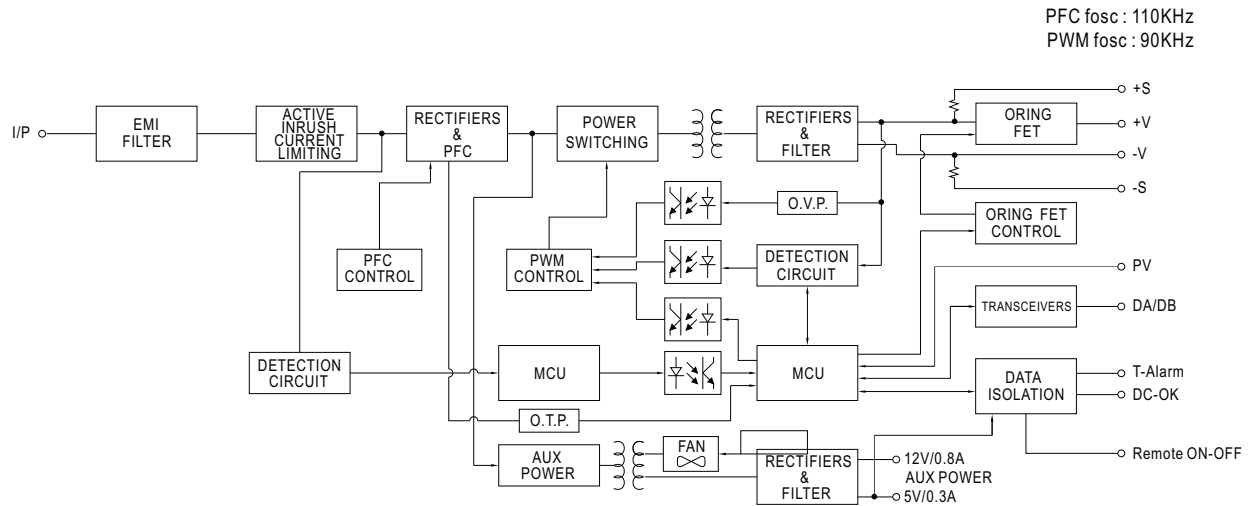
MODEL		RSP-2000-12		RSP-2000-24		RSP-2000-48		
OUTPUT	DC VOLTAGE	12V		24V		48V		
	RATED CURRENT	100A		80A		42A		
	CURRENT RANGE	0 ~ 100A		0 ~ 80A		0 ~ 42A		
	RATED POWER	1200W		1920W		2016W		
	RIPPLE & NOISE (max.) <small>Note.2</small>	150mVp-p		200mVp-p		300mVp-p		
	VOLTAGE ADJ. RANGE	10.5 ~ 14V		21 ~ 28V		42 ~ 56V		
	VOLTAGE TOLERANCE <small>Note.3</small>	± 2.0%		± 1.0%		± 1.0%		
	LINE REGULATION	± 1.0%		± 0.5%		± 0.5%		
	LOAD REGULATION	± 1.0%		± 0.5%		± 0.5%		
	SETUP, RISE TIME	1500ms, 60ms/230VAC at full load						
HOLD UP TIME (Typ.)	16ms/230VAC at 75% load      10ms/230VAC at full load							
INPUT	VOLTAGE RANGE <small>Note.4,5</small>	90 ~ 264VAC      127 ~ 320VDC						
	FREQUENCY RANGE	47 ~ 63Hz						
	POWER FACTOR (Typ.)	0.97/230VAC at full load						
	EFFICIENCY (Typ.)	87%		90.5%		92%		
	AC CURRENT (Typ.) <small>Note.4</small>	13A/115VAC      7A/230VAC		16A/115VAC      10A/230VAC		16A/115VAC      10A/230VAC		
	INRUSH CURRENT (Typ.)	COLD START 50A						
	LEAKAGE CURRENT	<2mA / 240VAC						
PROTECTION	OVERLOAD	105 ~ 125% rated output power Protection type : Constant current limiting, unit will shut down o/p voltage after 5 sec. re-power on to recover						
	OVER VOLTAGE	14.7 ~ 17.5V		29.5 ~ 35V		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	OUTPUT VOLTAGE PROGRAMMABLE(PV)	Adjustment of output voltage is allowable to 40 ~ 115% of nominal output voltage. Please refer to the Function Manual.						
	CURRENT SHARING	Up to 8000W or (3+1) units. Please refer to the Function Manual.						
	AUXILIARY POWER	5V @ 0.3A, 12V @ 0.8A						
	REMOTE ON-OFF CONTROL	By electrical signal or dry contact    Power ON:open    Power OFF:short. Please refer to the Function Manual.						
	REMOTE SENSE	Compensate voltage drop on the load wiring up to 0.5V. Please refer to the Function Manual.						
	DC OK SIGNAL	The isolated TTL signal out. Please refer to the Function Manual.						
ENVIRONMENT	WORKING TEMP.	-35 ~ +70℃ (Refer to "Derating Curve")						
	WORKING HUMIDITY	20 ~ 90% RH non-condensing						
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH non-condensing						
	TEMP. COEFFICIENT	± 0.03%/℃ (0 ~ 50℃)						
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes						
SAFETY & EMC <small>(Note 6)</small>	SAFETY STANDARDS	UL62368-1, CSA C22.2 No. 62368-1, TUV EN62368-1, EAC TP TC 004, BSMI CNS14336-1 approved						
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC    I/P-FG:2KVAC    O/P-FG:0.5KVAC						
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25℃ / 70% RH						
	EMC EMISSION	Parameter	Standard			Test Level / Note		
		Conducted	EN55032 (CISPR32)			Class B		
		Radiated	EN55032 (CISPR32)			Class A		
		Harmonic Current	EN61000-3-2			-----		
		Voltage Flicker	EN61000-3-3			-----		
	EMC IMMUNITY	EN55024, EN61204-3, EN61000-6-2, BSMI CNS13438						
		Parameter	Standard			Test Level / Note		
		ESD	EN61000-4-2			Level 3, 8KV air ; Level 2, 4KV contact		
		Radiated	EN61000-4-3			Level 3		
		EFT / Burst	EN61000-4-4			Level 3		
		Surge	EN61000-4-5			Level 4, 4KV/Line-Earth ; Level 3, 2KV/Line-Line		
		Conducted	EN61000-4-6			Level 3		
		Magnetic Field	EN61000-4-8			Level 4		
		Voltage Dips and Interruptions	EN61000-4-11			>95% dip 0.5 periods, 30% dip 25 periods, >95% interruptions 250 periods		
	OTHERS	MTBF	159K hrs min.    Telcordia SR-332 (Bellcore) ; 46.3K hrs min.    MIL-HDBK-217F (25℃)					
		DIMENSION	295*127*41mm (L*W*H)					
PACKING		1.95Kg; 6pcs/12.7Kg/1.15CUFT						
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ 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. Derating may be needed under low input voltages. Please check the derating curve for more details. 5. Please contact MEANWELL for 320~370VDC application. 6. 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 720mm*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 <a href="http://www.meanwell.com">http://www.meanwell.com</a> ) 7. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft).							



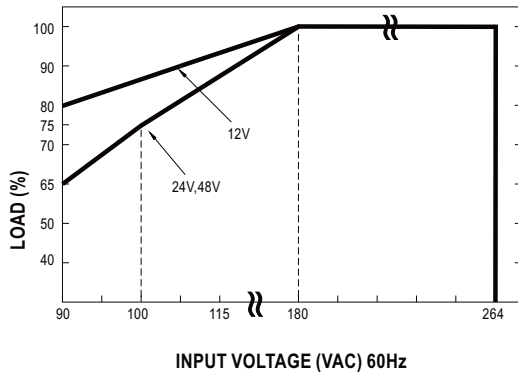
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## RSP-2000 series

### Block Diagram

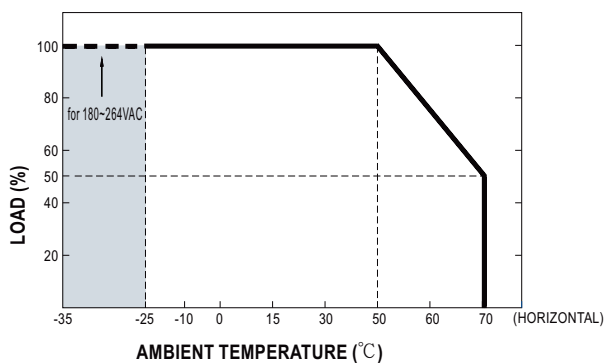


### Static Characteristics

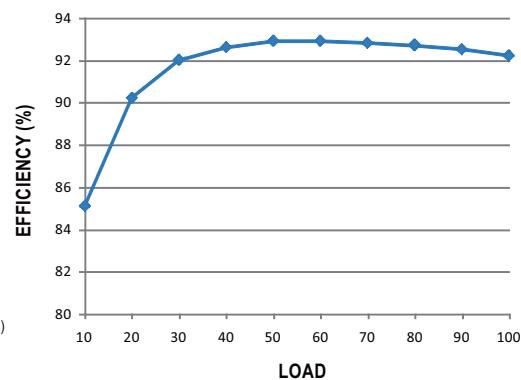


MODEL	12V	24V	48V
INPUT			
180~264VAC	1200W 100A	1920W 80A	2016W 42A
115VAC	1080W 90A	1632W 68A	1713.6W 35.7A
100VAC	1020W 85A	1440W 60A	1512W 31.5A
90VAC	960W 80A	1248W 52A	1310.4W 27.3A

### Derating Curve



### Efficiency vs Load (48V Model)



© The curve above is measured at 230VAC.