



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 89%
- Forced air cooling by built-in DC fan
- Output voltage programmable
- Built-in OR-ing diode, support hot swap (hot plug)
- Active current sharing up to 3000W for one 19" rack shelf
- Optiona I²C interface
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Optional conformal coating
- 5 years warranty

Certificates

- Safety: UL/EN/IEC 60950-1
- EMC: EN 55022 / 55024

Applications

- Industrial automation
- Distributed power architecture system
- Wireless/telecommunication solution
- Redundant power system
- Electric vehicle charger system
- Constant current source system

Description

RCP-1000 is a 1KW single output rack mountable front end AC/DC power supply. 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 DC fan with fan speed control, working for the temperature up to 60°C. RCP-1000 provides vast design flexibility by equipping various built-in functions such as the output programming, active current sharing (up to 8000W via three 19" rack shelves, RCP-1U), remote control, auxiliary power, alarm signal, etc.

Model Encoding / Order Information

RCP - 1000 - 24 □

- Interface option { Blank: Standard model, without I²C interface
C : Optional model, with I²C interface
- Output voltage
- Output wattage
- Series name

※ Note: 19" rack shelf, RCP-1U, available. Details available on <http://www.meanwell.com/>

SPECIFICATION

MODEL		RCP-1000-12		RCP-1000-24		RCP-1000-48	
OUTPUT	DC VOLTAGE	12V		24V		48V	
	RATED CURRENT	60A		40A		21A	
	CURRENT RANGE	0 ~ 60A		0 ~ 40A		0 ~ 21A	
	RATED POWER	720W		960W		1008W	
	RIPPLE & NOISE (max.) Note.2	150mVp-p		200mVp-p		300mVp-p	
	VOLTAGE ADJ. RANGE(SVR)	11.6 ~ 12.4V		23.2 ~ 24.8V		46.3 ~ 49.7V	
	VOLTAGE TOLERANCE Note.3	± 1.0%		± 1.0%		± 1.0%	
	LINE REGULATION	± 0.5%		± 0.5%		± 0.5%	
	LOAD REGULATION	± 0.5%		± 0.5%		± 0.5%	
	SETUP, RISE TIME	1000ms, 60ms/230VAC at full load					
HOLD UP TIME (Typ.)	16ms/230VAC at full load						
INPUT	VOLTAGE RANGE Note.4	90 ~ 264VAC 127 ~ 370VDC					
	FREQUENCY RANGE	47 ~ 63Hz					
	EFFICIENCY (Typ.)	81%		87%		89%	
	AC CURRENT (Typ.)	8.5A/115VAC 4.5A/230VAC		10.5A/115VAC 5.5A/230VAC		11A/115VAC 5.5A/230VAC	
	INRUSH CURRENT (Typ.)	COLD START 50A					
	LEAKAGE CURRENT	<1.1mA / 230VAC					
PROTECTION	OVERLOAD	105 ~ 125% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed					
	OVER VOLTAGE	13.2 ~ 16.2V		26.4 ~ 32.4V		52.8 ~ 64.8V	
		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	AUXILIARY POWER	5V @ 0.3A					
	REMOTE ON-OFF CONTROL	By electrical signal or dry contact ON:short OFF:open					
	REMOTE SENSE	Compensate voltage drop on the load wiring up to 0.5V					
	OUTPUT VOLTAGE PROGRAMMABLE	Adjustment of output voltage is allowable to 90 ~ 110% of nominal output voltage. Please refer to the Function Manual.					
	DC OK SIGNAL	The isolated TTL signal out, Please refer to the Installation Manual					
	AC OK SIGNAL	The isolated TTL signal out, Please refer to the Installation Manual					
	OVER TEMP WARNING	Logic " High" for over temperature warning, Please refer to the Installation Manual, isolated signal					
ENVIRONMENT	WORKING TEMP.	-20 ~ +60℃ (Refer to "Derating Curve")					
	WORKING HUMIDITY	20 ~ 90% RH non-condensing					
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH non-condensing					
	TEMP. COEFFICIENT	± 0.02%/℃ (0 ~ 50℃)					
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes					
SAFETY & EMC (Note 5)	SAFETY STANDARDS	UL60950-1, TUV EN60950-1, EAC TP TC 004 approved					
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.7KVDC					
	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) / EN55011 (CISPR11)			Class B	
		Radiated	EN55032 (CISPR32) / EN55011 (CISPR11)			Class B	
		Harmonic Current	EN61000-3-2			-----	
		Voltage Flicker	EN61000-3-3			-----	
	EMC IMMUNITY	EN55024 , EN61204-3, EN61000-6-2					
		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	274K hrs min. Telcordia SR-332 (Bellcore) ; 107.3K hrs min. MIL-HDBK-217F (25℃)					
	DIMENSION	295*127*41mm (L*W*H)					
	PACKING	1.93Kg; 6pcs/12.6Kg/1.04CUFT					
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. 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 http://www.meanwell.com) 6. 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).						