



Dimension

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



■ Features

- Universal AC input / Full range
(Withstand 300VAC surge input for 5 seconds)
- Built-in active PFC function
- High efficiency up to 92%
- Forced air cooling by built-in DC fan
- Output voltage programmable
- Built-in OR-ing FET, support hot swap (hot plug)
- Active current sharing up to 6000W for one 19" rack shelf
- Built-in I²C interface, PMBus protocol
- 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

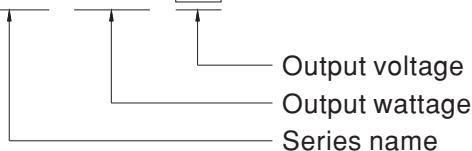
- Industrial automation
- Distributed power architecture system
- Wireless/telecommunication solution
- Redundant power system
- Electric vehicle charger system
- Constant current source system

■ Description

RCP-2000 is a 2KW single output rack mountable front end AC/DC power supply with a 1U low profile and a high power density up to 25W/inch³. 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 70°C. RCP-2000 provides vast design flexibility by equipping various built-in functions such as the PMBus communication protocol, output programming, active current sharing (up to 18000W via three 19" rack shelves, RKP-1U), remote control, auxiliary power, alarm signal, external control/monitor via the control model RKP-CMU1, etc. Maximum number that can be monitored by master controller in communication shall be 9 power supplies.

■ Model Encoding / Order Information

RCP - 2000 - 24



- ※ Note 1: 19" rack shelf, RKP-1U, available. Details available on <http://www.meanwell.com/>
- ※ Note 2: Control/Monitor unit, RKP-CMU1, available. Details available on <http://www.meanwell.com/>

SPECIFICATION

MODEL		RCP-2000-12	RCP-2000-24	RCP-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.4</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.5,6</small>	90 ~ 264VAC	127 ~ 320VDC		
	FREQUENCY RANGE	47 ~ 63Hz			
	POWER FACTOR (Typ.)	0.98/230VAC at full load			
	EFFICIENCY (Typ.)	86%	90.5%	92%	
	AC CURRENT (Typ.)	13A/115VAC	7A/230VAC	16A/115VAC 10A/230VAC	
	INRUSH CURRENT (Typ.)	COLD START 50A			
	LEAKAGE CURRENT	<1.1mA / 230VAC			
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	AUXILIARY POWER	5V @ 0.3A, 12V @ 0.8A			
	REMOTE ON-OFF CONTROL	Please refer to the Function Manual			
	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			
	FAN FAIL SIGNAL	The isolated TTL signal out, Please refer to the Installation Manual			
ENVIRONMENT	WORKING TEMP.	-40 ~ +70°C (Refer to "Derating Curve")			
	WORKING HUMIDITY	20 ~ 90% RH non-condensing			
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH non-condensing			
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)			
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes			
SAFETY & EMC (Note 7)	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°C / 70% RH			
	EMC EMISSION	Parameter	Standard	Test Level / Note	
		Conducted	EN55032 (CISPR32) / EN55011 (CISPR11)	Class B	
		Radiated	EN55032 (CISPR32) / EN55011 (CISPR11)	Class A	
		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	145.1K hrs min. Telcordia SR-332 (Bellcore) ; 37.4K hrs min. MIL-HDBK-217F (25°C)			
	DIMENSION	295*127*41mm (L*W*H)			
	PACKING	2Kg; 6pcs/13Kg/1.04CUFT			
NOTE	<ol style="list-style-type: none"> All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. Under parallel operation of more than one rack connecting together, ripple of the output voltage may be higher than the SPEC at light load condition. It will go back to normal ripple level once the output load is more than 10%. Tolerance : includes set up tolerance, line regulation and load regulation. Derating may be needed under low input voltages. Please check the static characteristics for more details. Please contact MEANWELL for 320~370VDC application. 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) 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). 				