



#### Features:

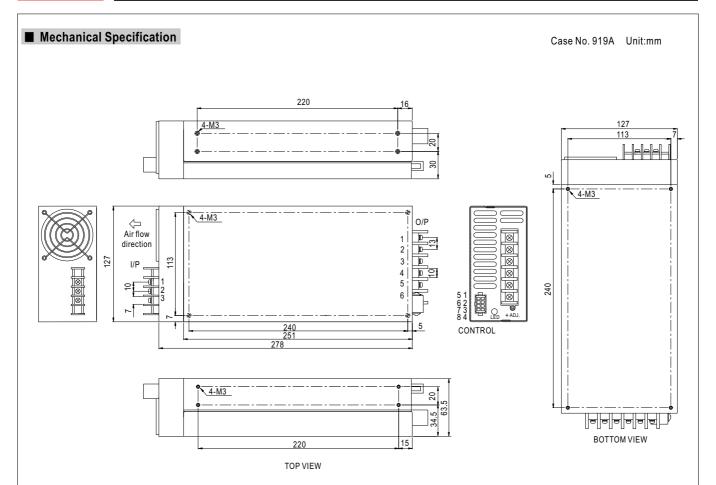
- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- Protections:Short circuit/Over load/Over voltage/Over temperature
- Foced air cooling by built-in DC fan
- Current sharing up to 2000W(3+1)
- With power good and fail signal output
- Built-in remote ON-OFF control
- Built-in remote sense function
- 3 years warranty

### **SPECIFICATION**



MODEL		PSP-500-5	PSP-500-12	PSP-500-13.5	PSP-500-15	PSP-500-24	PSP-500-27	PSP-500-48			
	DC VOLTAGE	5V	12V	13.5V	15V	24V	27V	48V			
	RATED CURRENT	80A	41.5A	37A	33A	20.8A	18.5A	10.5A			
	CURRENT RANGE	0~80A	0 ~ 41.5A	0 ~ 37A	0 ~ 33A	0 ~ 20.8A	0 ~ 18.5A	0 ~ 10.5A			
	RATED POWER	400W	498W	499.5W	495W	499.2W	499.5W	504W			
	RIPPLE & NOISE (max.) Note.2	100mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	200mVp-p			
OUTPUT	VOLTAGE ADJ. RANGE	4.75 ~ 5.5V	10 ~ 13.2V	12 ~ 15V	13.5 ~ 18V	20 ~ 26.4V	24 ~ 30V	41 ~ 56V			
	VOLTAGE TOLERANCE Note.3		±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%			
	LINE REGULATION	±0.5%	±0.3%	±0.3%	±0.3%	±0.2%	±0.2%	±0.2%			
	LOAD REGULATION	±2.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%			
	SETUP, RISE TIME	1500ms, 50ms at	full load								
	HOLD TIME (Typ.)	24ms at full load									
	, , ,	90 ~ 264VAC	127 ~ 370VDC								
	FREQUENCY RANGE	47 ~ 63Hz									
	POWER FACTOR (Typ.)	0.95/230VAC	0.98/100VAC at f	ull load							
INPUT	EFFICIENCY (Typ.)	76%	82%	82%	82%	84%	84%	86%			
	AC CURRENT (Typ.)	7A/115AVC	3.5A/230VAC				- I	l			
	INRUSH CURRENT (Typ.)	20A/115VAC	40A/230VAC								
	LEAKAGE CURRENT	<1mA / 240VAC									
		110 ~ 125% rated output power									
	OVER LOAD	Protection type: Constant current limiting, recovers automatically after fault condition is removed									
		5.75 ~ 6.75V	13.8 ~ 16.2V	15.5 ~ 18.2V	18 ~ 21V	27.6 ~ 32.4V	31 ~ 36.5V	57.6 ~ 67.2V			
PROTECTION	OVER VOLTAGE	Protection type: Shut down o/p voltage, re-power on to recover									
		RTH2≥95°C Detect on heatsink of Q1,Q7 power transistor & L3 output choke									
	OVER TEMPERATURE	Protection type : Shut down o/p voltage, recovers automatically after temperature goes down									
FUNCTION	REMOTE CONTROL	, ,	V=power on ; 4 ~ 1	•	sink current <4 ~						
	WORKING TEMP.	-10 ~ +60°C (Refer to output load derating curve)									
	WORKING HUMIDITY	20 ~ 90% RH with 30CFM forced air non-condensing									
ENVIRONMENT	STORAGE TEMP., HUMIDITY	-20 ~+85°C, 10 ~ 95% RH									
	TEMP. COEFFICIENT	±0.03%°C (0~50°C)									
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes									
	SAFETY STANDARDS	UL60950-1, TUV EN60950-1 Approved									
	WITHSTAND VOLTAGE		I/P-FG:1.5KVAC								
SAFETY &	ISOLATION RESISTANCE		D/P-FG:100M Ohm								
EMC	EMI CONDUCTION & RADIATION		N55022 (CISPR22)								
(Note 4)	HARMONIC CURRENT	Compliance to EN	,								
	EMS IMMUNITY	•	· · · · · · · · · · · · · · · · · · ·	,8,11; ENV50204.	EN55024. Liaht in	dustry level, criteri	аА				
	MTBF	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, Light industry level, criteria A  130.1K hrs min. MIL-HDBK-217F (25°C)									
OTHERS	DIMENSION	278*129*63.5mm									
	PACKING	2.6Kg; 6pcs/15.7	1 /								
NOTE	All parameters NOT special     Ripple & noise are measure     Tolerance: includes set up     The power supply is consid     EMC directives.     In parallel connection, mayte     Derating may be needed ur	ed at 20MHz of batolerance, line regered a componence only one unit of	andwidth by using gulation and load re t which will be inst perated, if the total	a 12" twisted pair- egulation. alled into a final e	wire terminated v quipment. The fin than 5% of rated	vith a 0.1uf & 47uf al equipment must load condition.	parallel capacitor.				





AC Input Terminal Pin. No. Assignment

Pin No.	Assignment	
1	AC/L	
2	AC/N	
3	FG ±	

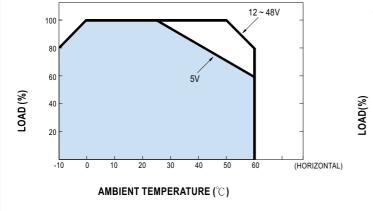
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Pin No.	Assignment				
1~3	DC OUTPUT +V				
4~6	DC OUTPUT -V				

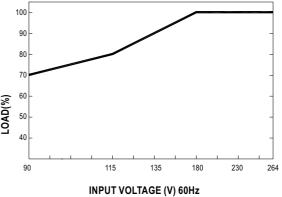
DC Output Terminal Pin. No Assignment Control Pin. No Assignment : MOLEX 5559-NP uses 5558 male crimp terminal

Pi	n No.	Assignment	Pin No.	Assignment	Mating connector	Terminal
	1	P(Current share)		NC		MOLEX 5556
	2	-S	6	PF(Power fail signal)	MOLEX 5557-NR	Female crimp
	3	G	7	+S	WOLLX OOO! WIX	Terminal receptacle
	4	RC-	8	RC+		receptacie

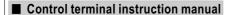
## ■ Derating Curve

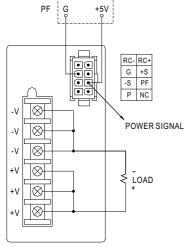
# ■ Output Derating VS Input Voltage





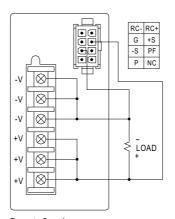




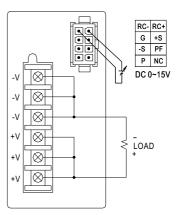


#### Power Fail Signal

PF Signal is the voltage difference between "G" and "PF" pin output



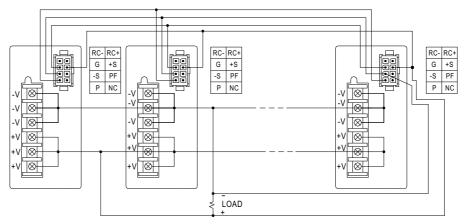
Remote Sensing



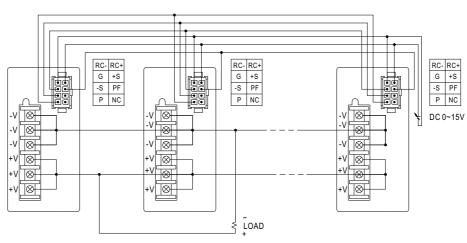
#### Remote Control

Power ON: When VRC+,RC-=0  $\sim$  0.8V or Open Power OFF: When VRC+,RC-=4  $\sim$  10V

### **■** Parallel Operation



#### Parallel Operation With Remote Sensing



Parallel Operation With Remote Control

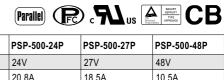




#### Features:

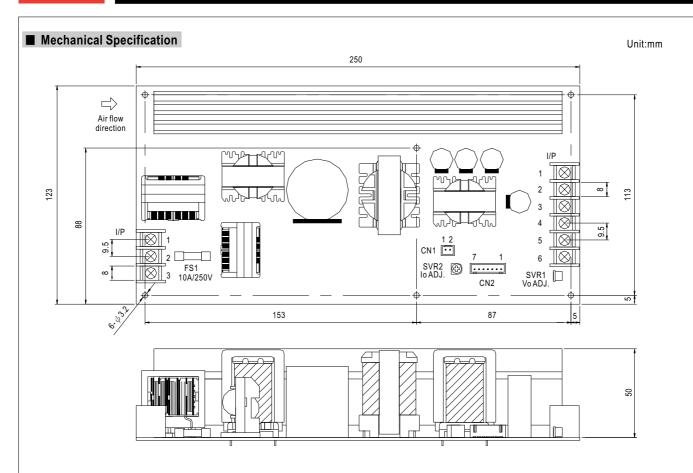
- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- Protections:Short circuit/Over load/Over voltage/Over temperature
- Foced air cooling by built-in DC fan
- Current sharing up to 2000W(3+1)
- With power good and fail signal output
- Built-in remote ON-OFF control
- Built-in remote sense function
- 3 years warranty

## **SPECIFICATION**



MODEL		PSP-500-5P	PSP-500-12P	PSP-500-13.5P	PSP-500-15P	PSP-500-24P	PSP-500-27P	PSP-500-48P		
	DC VOLTAGE	5V	12V	13.5V	15V	24V	27V	48V		
	RATED CURRENT	80A	41.5A	37A	33A	20.8A	18.5A	10.5A		
	CURRENT RANGE	0 ~ 80A	0 ~ 41.5A	0 ~ 37A	0 ~ 33A	0 ~ 20.8A	0 ~ 18.5A	0 ~ 10.5A		
	RATED POWER	400W	498W	499.5W	495W	499.2W	499.5W	504W		
	RIPPLE & NOISE (max.) Note.2	100mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	200mVp-p		
OUTPUT	VOLTAGE ADJ. RANGE	4.75 ~ 5.5V	10 ~ 13.2V	12 ~ 15V	13.5 ~ 18V	20 ~ 26.4V	24 ~ 30V	41 ~ 56V		
	VOLTAGE TOLERANCE Note.3	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%		
	LINE REGULATION	±0.5%	±0.3%	±0.3%	±0.3%	±0.2%	±0.2%	±0.2%		
	LOAD REGULATION	±2.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%		
	SETUP, RISE TIME	1500ms, 50ms at								
	HOLD TIME (Typ.)	24ms at full load								
	VOLTAGE RANGE Note.5		127 ~ 370VDC							
	FREQUENCY RANGE	47 ~ 63Hz								
	POWER FACTOR (Typ.)	0.95/230VAC	0.98/100VAC at	full load						
INPUT	EFFICIENCY (Typ.)	76%	82%	82%	82%	84%	84%	86%		
	AC CURRENT (Typ.)	7A/115AVC	3.5A/230VAC	0270	0270	0470	0470	0070		
	INRUSH CURRENT (Typ.)	20A/115VAC	40A/230VAC							
	LEAKAGE CURRENT		407 (7200 V710							
	LEARAGE CORRENT	<1mA / 240VAC								
	110 ~ 125% rated output power  OVER LOAD Protection type: Constant current limiting, recovers automatically after fault condition is removed									
		5.75 ~ 6.75V	13.8 ~ 16.2V	15.5 ~ 18.2V	18 ~ 21V	27.6 ~ 32.4V	31 ~ 36.5V	57.6 ~ 67.2V		
PROTECTION	OVER VOLTAGE	Protection type :	Shut down o/p volt	age, re-power on to	recover	<u>'</u>	_	<u>'</u>		
		RTH2 ≥ 95°C Detect on heatsink of Q1,Q7 power transistor & L3 output choke								
	OVER TEMPERATURE	Protection type: Shut down o/p voltage, recovers automatically after temperature goes down								
FUNCTION	REMOTE CONTROL	RC+/RC-: 0 ~ 0.8V=power on ; 4 ~ 10V=power off sink current <4 ~ 10mA								
	WORKING TEMP.	-10 ~ +60°C (Refer to output load derating curve)								
	WORKING HUMIDITY	20 ~ 90% RH with 30CFM forced air non-condensing								
ENVIRONMENT	STORAGE TEMP., HUMIDITY	-20 ~ +85°C, 10 ~ 95% RH								
	TEMP. COEFFICIENT	±0.03%°C (0~50°C)								
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes								
	SAFETY STANDARDS	UL1950, TUV EN60950-1 Approved								
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC								
SAFETY &	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC								
EMC	EMI CONDUCTION & RADIATION		N55022 (CISPR22)							
(Note 4)	HARMONIC CURRENT	Compliance to E		, 5.400 5						
•	EMS IMMUNITY			6,8,11; ENV50204,	FN55024 Lightin	dustry level criteri	аΔ			
	MTBF	130.1K hrs min.			LITOUZT, LIGHT III	aastry level, Gillell	u/i			
OTHERS	DIMENSION			(200)						
CHILKS	PACKING	250*123*50mm ( 1.3Kg; 6pcs/7.8k								
	All parameters NOT specia			VAC input, rated to	ad and 25°C of a	mbient temperatur	e.			
NOTE	Ripple & noise are measure     Tolerance : includes set up     The power supply is consided EMC directives.     Derating may be needed up	ed at 20MHz of b tolerance, line re lered a componer	andwidth by using gulation and load in t which will be ins	a 12" twisted pair- regulation. talled into a final e	wire terminated w	vith a 0.1uf & 47uf all equipment must	parallel capacitor. t be re-confirmed t			
							File Name:PSP-5	00-P-SPEC 2006		





AC Input Terminal Pin. No. Assignment

Pin No.	Assignment				
1	AC/L				
2	AC/N				
3	FG. ±				

DC Output Terminal Pin. No Assignment

			·
Pin No.		Assignment	
	1~3	DC OUTPUT +V	
	4~6	DC OUTPUT -V	

#### $Connector\ \ Pin.\ No.\ \ Assignment (CN1): JST\ B2B-XH\ or\ equivalent$

Pin No.	Assignment	Mating Housing	Terminal
1	GND	JST XHP	JST SXH-001T-P0.6
2	+12V	or equivalent	or equivalent

Connector Pin. No. Assignment (CN2): JST B7B-XH or equivalent

Pin No.	Assignment	Pin No.	Assignment	Mating Housing	Terminal
1	P(Current share)	5	Power fail signal		
2	+\$	6	RC+		JST SXH-001T-P0.6
3	-S	7	RC-	or equivalent	or equivalent
4	GND				

## ■ Derating Curve

## ■ Output Derating VS Input Voltage

