

FEATURES

- 3 Year Warranty
- Low Cost, High Reliability
- 100% Full Load Burn-In Tested
- Built-In Remote Sense Function
- Built-In Remote ON/OFF Control
- Built-In Active PFC Function, ≥ 0.95
- AC Input Active Surge Current Limiting
- Built-In Constant Current Limiting Circuit
- Built-In Active Current Sharing and Parallel Function
- Short Circuit, Overload, Over Voltage, and Over Temperature Protected



SPECIFICATIONS: PSPSP1500 Series

All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted.
 We reserve the right to change specifications based on technological advances.

INPUT SPECIFICATIONS

Input Voltage Range	176 ~ 264VAC (248 ~ 370VDC)
Input Frequency	47 to 63Hz
AC Current (typical)	8.4A @ 230VAC
Inrush Current (typical)	80A @ 230VAC
Leakage Current	< 3.5mA @ 240VAC
Power Factor (typical)	0.96 @ 230VAC and full load
Remote ON/OFF Control	RC+/RC-: 0 ~ 0.8V = power on; 4 ~ 10V = power off sink current < 30mA

OUTPUT SPECIFICATIONS

Output Voltage	See Table
Output Power	See Table
Voltage Tolerance (See Note 3)	5V output: 6%, 12V output: 3%, 13.5V & 15V outputs: 2%, 24V - 48V outputs: 1%
Voltage Adjustment Range	See Table
Line Regulation	5V output: 0.5%, 12V - 15V outputs: 0.3%, 24V - 48V outputs: 0.2%
Load Regulation	5V output: 2.0%, 12V - 48V outputs: 0.5%
Output Current	See Table
Ripple & Noise (max) (See Note 2)	5V output: 100mVp-p; 12V - 27V outputs: 150mVp-p; 48V output: 200mVp-p
Setup, Rise Time	1500ms, 50ms @ 230VAC and full load
Hold Up Time (typical)	24ms @ 230VAC and full load
Temperature Coefficient	$\pm 0.03\%/^{\circ}\text{C}$ (0 ~ 50°C)

PROTECTION

Overload Protection	115 ~ 140% rated output power Protection Type: Constant current limiting; recovers automatically after fault condition is removed
Over Voltage Protection	See Table Protection Type: Shutdown output voltage; re-power on to recover
Over Temperature Protection	95°C (TSW1) detect on the heatsink of PFC MOSFET 90°C (TSW2) detect the winding of output choke Protection Type: Shutdown output voltage; recovers automatically after temperature goes down

GENERAL SPECIFICATIONS

Efficiency (typical)	See Table
Withstand Voltage	3000VAC (Input to Output), 1500VAC (Input to FG), 500VAC (Output to FG)
Isolation Resistance	100M Ω /500DC (Input to Output, Input to FG, and Output to FG)

ENVIRONMENTAL SPECIFICATIONS

Working Temperature	-10°C to +60°C (refer to output load derating curve)
Storage Temperature	-20°C to +85°C
Working Humidity	20 ~ 90% RH non-condensing
Storage Humidity	10 ~ 95% RH
Vibration	10 ~ 500Hz, 2G 10min./1 cycle, 60min each along X, Y, Z axes.
MTBF	43,400 hours min. @ 25°C (MIL-HDBK-217F)

PHYSICAL SPECIFICATIONS

Weight	6900 grams
Dimensions	278(L) x 129(W) x 190.5(H) mm
Warranty	3 years

SAFETY & EMC

Safety Standards	UL60950-1, TUV EN60950-1 approved
EMI Conduction & Radiation	Compliance to EN55022 (CISPR22) Class B
Harmonic Current	Compliance to EN61000-3-2,-3
EMS Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, light industry level, criteria A

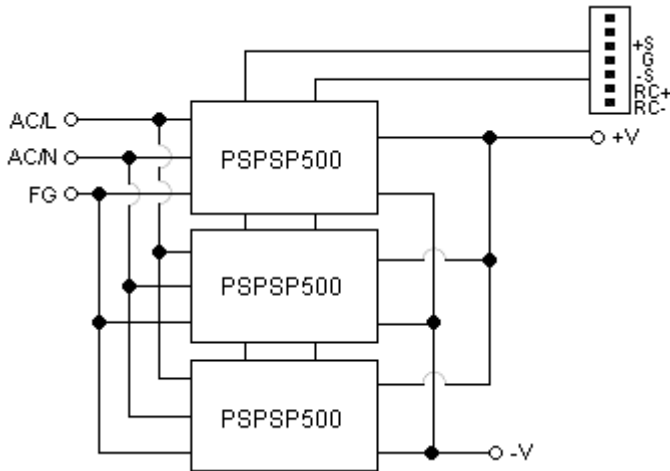
OUTPUT VOLTAGE / CURRENT RATING CHART

Model Number	Input Voltage	Output Voltage	Voltage Adjust. Range	Over Voltage Protection	Output Current	Output Power		Efficiency
						Rated Power	Peak Load ⁽⁴⁾	
PSPSP1500-5	176 ~ 264 VAC (248 ~ 370 VDC)	5 VDC	4.75 ~ 5.5V	5.75 ~ 6.75V	217.5A	1087.5W	1200W	77%
PSPSP1500-12		12 VDC	10 ~ 13.2V	13.8 ~ 16.2V	112.5A	1350W	1500W	84%
PSPSP1500-13.5		13.5 VDC	12 ~ 15V	15.5 ~ 18.2V	100.5A	1356.75W	1500W	84%
PSPSP1500-15		15 VDC	13.5 ~ 18V	18 ~ 21V	90A	1350W	1500W	84%
PSPSP1500-24		24 VDC	20 ~ 26.4V	27.6 ~ 32.4V	56.4A	1353.6W	1500W	85%
PSPSP1500-27		27VDC	24 ~ 30V	31 ~ 36.5V	50.4A	1360.8W	1500W	85%
PSPSP1500-48		48 VDC	41 ~ 56V	57.6 ~ 67.2V	28.5A	1368W	1500W	86%

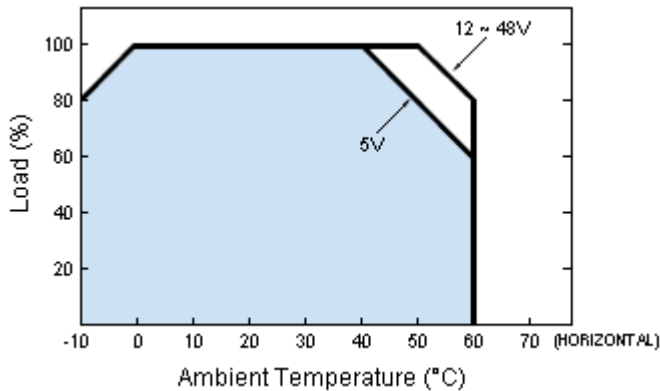
NOTES

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load, and 25°C ambient temperature.
2. Ripple & noise are measured at 20MHz bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor.
3. Tolerances include set up tolerance, line regulation, and load regulation.
4. 10% Duty cycle maximum within every 30 seconds (max.). Average output power should not exceed the rated power.
5. The power supply is considered a component, which will be installed into final equipment. The final equipment must be re-confirmed that it still meets EMC directives.

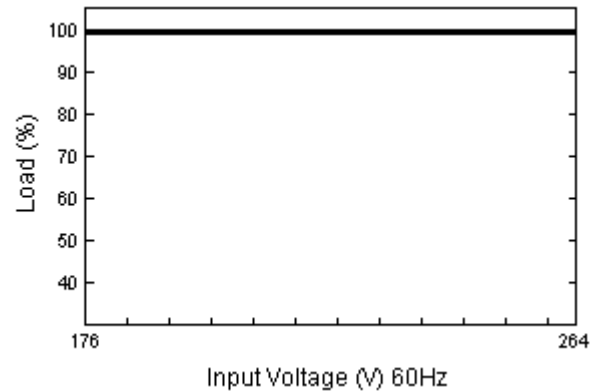
BLOCK DIAGRAM



DERATING CURVE

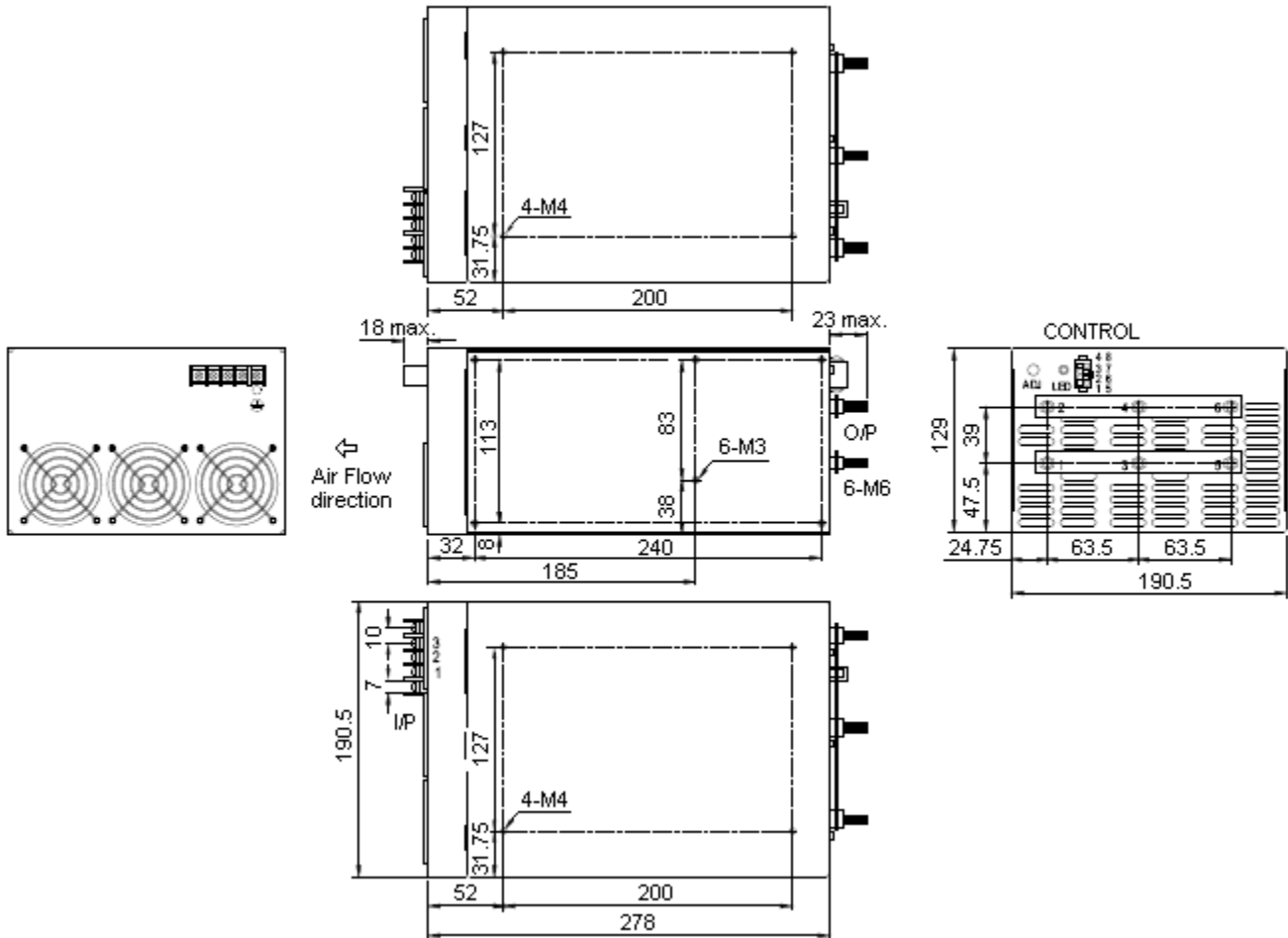


OUTPUT DERATING VS INPUT VOLTAGE



MECHANICAL DRAWING

Unit: mm



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, 5	DC OUTPUT +V
2, 4, 6	DC OUTPUT -V

CONTROL PIN NO. ASSIGNMENT: MOLEX 5559-NP USES 5558 MALE CRIMP TERMINAL			
Pin No.	Assignment	Mating Connector	Terminal
1	P (Current Share)	MOLEX 5557-NR	MOLEX 5556 Female Crimp Terminal Receptacle
2	-S		
3	G		
4	RC-		
5	NC		
6	NC		
7	+S		
8	RC+		