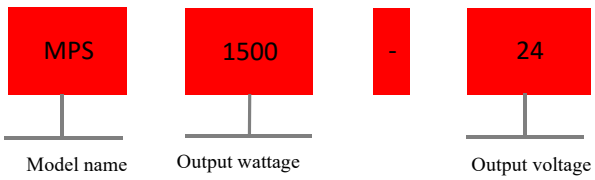
MPS1500-□ Series

▲ Features

AC input 180-264VAC
AC input active surge current limiting
Protections:short circuit/overload/over voltage/over temperature
Forced air cooling by built-in DC ball bearing fan
High power density 7.8w/in³
With DC OK signal output
2 years warranty

▲ Model Encoding



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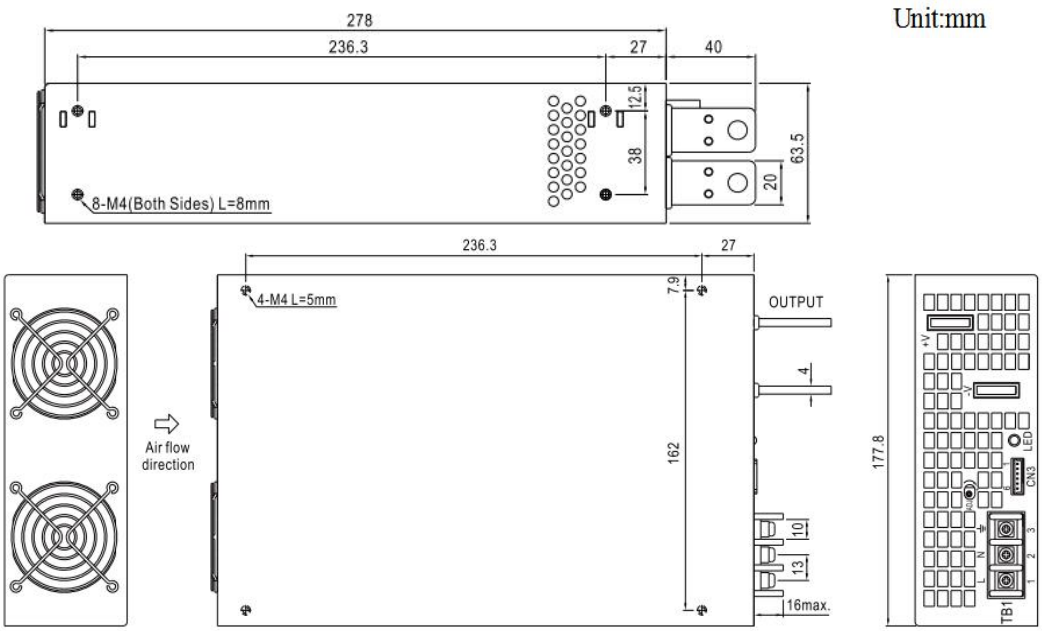
Specification

Input						
Voltage range	180-264VAC or 254-370VDC					
AC current	17.5A/230VAC					
Frequency range	47-63Hz					
Inrush current (max)	60A/230VAC					
Output						
DC voltage (V)	5V	12V	15V	24V	27V	48V
Voltage ADJ.range	3.3-5.5V	10.8-13.5V	13.5-16.5V	21.6-26.4V	25-30V	43.2-56V
Rated Current(A)	300A	125A	100A	62.5A	55.6A	31.3A
Rated power(W)	1500W	1500W	1500W	1500W	1501.2W	1502.4W
Ripple & noise(max) Note.2	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p
Voltage tolerange Note.3	±2%	±1%	±1%	±1%	±1%	±1%
Line regulation	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
Load regulation	±2%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
Efficiency	81%	85%	85%	87%	88%	89%
Setup，rise time	150ms 12ms/230VAC(at full load)					
Hold up time	26ms/230VAC (at full load)					
Status indicator	Green LED					
Protection						
Overload	105%-125% rated output power					
	Protection type: shut down o/p voltage,re-power on to recover					
Over voltage(V)	5.75-6.75V	14.5-16.2V	18-21V	27.6-32.4V	31-35V	57.6-67.2V
	Protection type: shut down o/p voltage,re-power on to recover					
Over temperature	90℃±5℃（5V）,85℃±5℃（12V,15V）,80℃±5℃（24V）,75℃±5℃（27V,48V）(TSW1: radiator for detection of output diode)					
	Protection type: Shut down o/p voltage,recovers automatically after temperature goes down					
DC OK signal	PSU turn on：3.3-5.6V PSU turn off：0-1V					
Safety and EMC						
Withstand voltage	I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC					
Isolation resistance	I/P-O/P,I/P-FG,O/P-FG:100M Ohms/500VDC//70％RH					
Safety standards Note.6	Design refer to EN IEC 62368-1、GB4943.1					
EMC emission	**Parameter**		**Standard**		**Test Level**	
	Conducted		EN 55032		Class A	
	Radiated		EN 55032		Class A	
	Voltage Flicker		EN 61000-3-3		Design refer to Class A	
	Harmonic Current		EN IEC 61000-3-2		Design refer to Class A	
EMC immunity	**Parameter**		**Standard**		**Test Level**	
	ESD		EN 61000-4-2		Level 3 8KV air;Level 2 4KV contact	
	Radiated Susceptibility		EN 61000-4-3		Level 2 3V/m	
	EFT/Burest		EN 61000-4-4		Level 3 2KV	
	Surge		EN 61000-4-5		Level 3 2KV/Line-Line;Level3 4kV/Line-Line-FG	
	Conducted		EN 61000-4-6		Level 2 3V	
	Magnetic Field		EN 61000-4-8		Level 2 3A/m	
	Voltage Dips and interruptions		EN 61000-4-11		< 5% residual voltage for 0.5 cycles ,70% residual voltage for 25 cycles , < 5 % residual voltage for 250 cycles:	
Environmental						
Working temperature	- 20～+70 ℃(Refer to "Derating curve ")					
Storage temperature	- 40～+85℃					
Storage humidity	10-95％RH					
Vibration	Component:10-500Hz,2G 10 min/1cycle 60 min each along X,Y,Z axes					

Others		
Mean time between failure	≥134.5K hrs MIL-HDBK-217F(25℃)	
Installation	Attachment: installation accessories	
Protection class	IP20	
Weight	About 2.5kg	
Length*width*height	278*177.8*63.5mm	
Data	**Details**	**Model name**
	MPS 1500W 300A/5V	MPS1500-05
	MPS 1500W 125A/12V	MPS1500-12
	MPS 1500W 100A/15V	MPS1500-15
	MPS 1500W 62.5A/24V	MPS1500-24
	MPS 1501.2W 55.6A/27V	MPS1500-27
	MPS 1502.4W 31.3A/48V	MPS1500-48

Installation Instruction



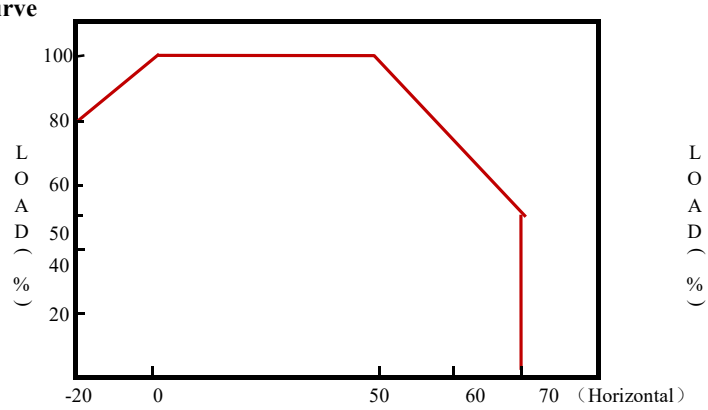
Terminal pin distribution

Pin number	Pin function
1	AC/L
2	AC/N
3	FG ⏚

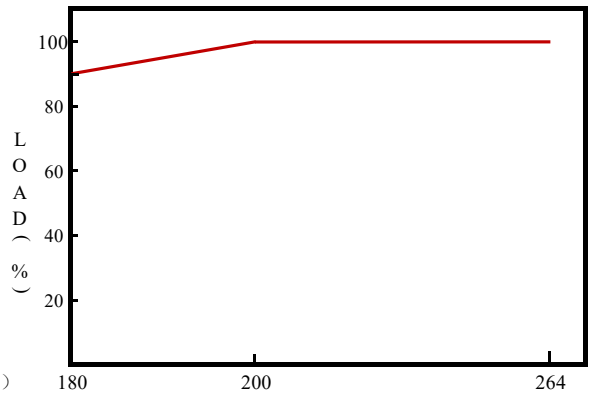
Pin position definition of lead control terminal (CN3) :

Pin number	Pin function	Pin number	Pin function
1	DC_OK Signal	4	+S
2	DC_OK GND	5	RC-
3	-S	6	RC+

Derating curve



Ambient temperature（℃）



Input voltage（VAC)60Hz

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 teminated with a 0.1uf & 47uf parallel capacitor."

3.Tolerance:includes set up tolerance,line regulation and load regulation.

4: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)