

### MPS-100W□FS Series



## **▲** Features

Superior performance with small ripple

100% full load burn-in test

Protections:short circuit/overload/over voltage

LED indicator for power on

Optional rail mounting bracket can be installed on DIN rail TS35

Instant overload capability is 120%-150%

Cooling by free air convection

Seismic protection

"Three pivot points" M4 large caliber installation

"Three proof" treatment, suitable for severe environment

Terminal with protective cover

All aluminum case

Surge protection

3 years warranty

## **▲** Applications

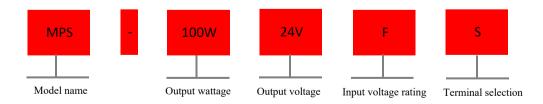
Industrial automation control system Intelligent control system

Electronic instruments and devices

LED control

Household appliances

# **▲** Model Encoding





### Specification

Specification												
Input	10.000											
Voltage range		120-370VDC										
AC current		2.0A/115VAC 1.2A/230VAC										
Frequency range		47-63Hz										
Inrush current (max)	22A/115VAC	2 44A/230VAC										
Output									_			
DC voltage (V)	3.3V	5V	7.5V	9V	12V	15V	24V	36V	48V			
Efficiency	78%	78%	78%	85%	85%	86%	88%	88%	88%			
Voltage ADJ.range	±10%								_			
Rated Current(A)	20A	16A	13.4A	11.2A	8.4A	6.7A	4.2A	2.8A	2.1A			
Rated power(W)	66W	80W	100.5W	100.8W	100.8W	100.5W	100.8W	100.8W	100.8W			
Ripple & noise(max ) Note.2	80mVp-p	80mVp-p	120mVp-p	120mVp-p	120mVp-p	120mVp-p	130mVp-p	130mVp-p	150mVp-p			
Voltage tolerange Note.3	±2%	±2%	±1%	±1%	±1%	$\pm 1\%$	$\pm 1\%$	±1%	±1%			
Line regulation Note.4	±0.5%	±0.5%										
Load regulation Note.5	±1%	±1%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%			
Setup, rise time	1000ms 20ms	5/230VAC 1000:	ms 20ms/115VAC	C(at full load)								
Hold up time	30ms/230VA	30ms/230VAC 25ms/115VAC(at full load)										
Status indicator	Green LED	Green LED										
Protection												
Overload	120%-150% rated output power  Protection type: Hiccup mode, recovers automatically after fault condition is removed											
			1		_	_						
Over voltage(V)	3.7-4.2V	5.6-6.8V	8.6-10.1V	10.4-12.2V	13.8-16.2V	18-21V	27.6-32.4V	41.4-46.8V	57.6-67.2V			
- ' '	Protection type: Hiccup mode, recovers automatically after fault condition is removed											
Three proof treatment	Suitable for h	igh dust, condens	ation occasions									
Safety and EMC												
Withstand voltage	I/P-O/P:3KV	AC I/P-FG:1.5K	VAC O/P-FG:0.	.5KVAC								
Isolation resistance	I/P-O/P,I/P-FG,O/P-FG:100M Ohms/500VDC/25°C/70% RH											
Safety standards	Design refer t	to EN IEC 62368-	-1、GB4943.1									
EMC emission	Parameter			Standard			Test Level	Test Level				
	Conducted			EN 55032			Class A	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	Test Level				
	ESD			EN 61000-4-2			Level 3 8KV	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/L	Level 3 2KV/Line-Line;Level3 4kV/Line-Line-FG				
	Conducted			EN 61000-4-6			Level 2 3V	Level 2 3V				
	Magnetic Fie	Magnetic Field			EN 61000-4-8			Level 2 3A/m				
	Voltage Dips	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	- 25∼+60℃	(Refer to "Derati	ng curve ")									
Storage temperature	- 40∼+85℃											
Storage humidity	10-95 % RH	10-95 % RH										
Vibration	Component:1	0-500Hz,2G 10 n	nin/1 cycle 60 min	each along X,Y,	Z axes							
Others												
Mean time between failure	≥320K hrs,M	IL-HDBK-217F(2	25℃)									
Installation	Plate screws	Plate screws fixed, or optional accessories can be TS35 guide rail installation										
Protection class	IP20	IP20										
Weight	About 0.45Ks	About 0.45Kg										
		~				168*98*38mm						



Data	Details	Model name
	MPS 66W 20.0A/3.3V	MPS-100W03VFS
	MPS 80W 16.0A/05V	MPS-100W05VFS
	MPS 100.5W 13.4A/7.5V	MPS-100W07VFS
	MPS 100.8W 11.2A/09V	MPS-100W09VFS
	MPS 100.8W 8.4A/12V	MPS-100W12VFS
	MPS 100.5W 6.7A/15V	MPS-100W15VFS
	MPS 100.8W 4.2A/24V	MPS-100W24VFS
	MPS 100.8W 2.8A/36V	MPS-100W36VFS
	MPS 100.8W 2.1A/48V	MPS-100W48VFS
Attachment	Details	Model name
Rail pin	TS35 installation accessories	MPS-F050C



#### **Installation Instruction** 67,9 28,1 Mounting plate. -Housing Due to the high voltage inside the power supply, please kindly ensure the safety when installing the screws in the red mounting hole , It is necessary to the ensure that the size in the drawing above in not more than 4mm, and 160 the installation torque is not more 168 than 1.2N.m 160 0 (0) 168 Installation Instructions Terminal Spec U Type of the width of the terminal Wire installation specification Max. Torque 95 Terminal 8mm MAX 22-12AWG 1. 2N. m (MAX) **Derating curve** Ta=25℃ 100 100 Other 80 80 L O O 60 60 D D 40 40 % % 20 20 -25 40 50 85 115 220 264 Ambient temperature ( $^{\circ}$ C) Input voltage (VAC)60Hz

- **Note:** 1.All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C 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.Line regulation is measured from low line to high line at rated load.
  - 5.Load regulation is measured from 0% to 100% rated load.
  - 6.According to the requirements of GB4943.1,the power supply is only used for safe use in areas below sea level of 2000M and non-tropical climates.