





### FEATURES

- 100W single output within 2 x 4" compact size
- Active PFC Meets EN61000-3-2 & EN61000-3-3 Class D
- Conducted EMI meets CISPR/FCC Class B
- High Efficiency to 88%

## 1. Description

MPI-S101 series are a 100W single output, open frame switching power supply with PFC function for industrial application. The active PFC design meets EN61000302 and EN61000-3-3 regulation and the high efficiency upto 88%.

Model	Output Voltage	Min. Load	Rated Load	Line Regulation <sup>(Note 1)</sup>	Load Regulation <sup>(Note 2)</sup>	Voltage Setting <sup>(Note 3)</sup>	Ripple & Noise p-p <sup>(Note 4)</sup>	Efficiency (Typ.)
MPI-S101-12	+12V	0A	8.4A	±0.5%	±1%	±1%	1%	87%
MPI-S101-15	+15V	0A	6.7A	±0.5%	±1%	±1%	1%	87%
MPI-S101-24	+24V	0A	4.2A	±0.5%	±1%	±1%	1%	88%
MPI-S101-48	+48V	0A	2.1A	±0.5%	±1%	±1%	1%	89%

Note: 1) Line regulation is measured from 100Vac to 240Vac with full load.

2) Load regulation is measured from 10% to 100% load.

3) Voltage setting is at 60% rated load and 25°C.

4) Add a 0.1uF ceramic capacitor and a 10uF E.L.capacitor to output for Ripple & Noise measuring @20MHz BW.

## 2. Input Specification

Parameter	Conditions/Description	Min.	Nom.	Max.	Units
Input Voltage-AC	Continuous input range.	90	115/230	264	VAC
Input Frequency	AC input.	47	50/60	63	Hz
Hold Up Time	At 115VAC		10		ms
Inrush Current	At 240VAC			90	A
Leakage Current				3.5m	A

## 3. Output Specification

Parameter	Conditions/Description	Min.	Nom.	Max.	Units
Minimum load			See Chart of Description		
Ripple & Noise	Rated load, 20MHz bandwidth		See Chart of Description		
Output Power			100		Watt

## 4. Interface Signals and Internal Protection

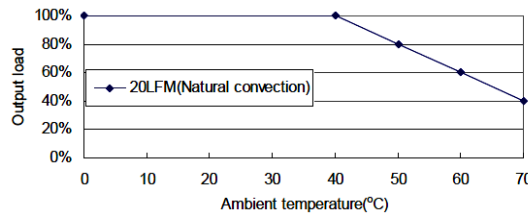
Parameter	Conditions/Description
Over Voltage Protection	Auto recovery
Short Circuit Protection	Automatic recovery upon of short circuit condition.



### 5. Environment Specification

Parameter	Conditions/Description	Min.	Nom.	Max.	Units
Operating Temperature	At Rated load 40~70°C with 2%/°C Derating (See chart below)	0		70	°C
Storage Temperature		-20		+85	°C

#### Derating curve



### 6. Safety Approvals, EMI and EMS Specification

Parameter	Conditions/Description	Min.	Nom.	Max.	Units
Safety Approvals	UL, UL 60950-1, 2 <sup>nd</sup> edition			approved	
Hi-Pot	Input to output	4242			VDC
Radiation	EN 55022 / CISPR 22 & FCC Part 15	B			
Conduction	EN 55022 / CISPR 22 & FCC Part 15	B			Class
PFC	EN 61000-3-2 & EN 61000-3-3	D			
EMS	IEC 61000-4-2, 8KV air discharge and 4KV contact discharge	A			
	IEC 61000-4-3, 3V/M	A			
	IEC 61000-4-4, 1KV line & PE	A			
	IEC 61000-4-5, L-N:±1KV, L/N-PE:±2KV	A			
	IEC 61000-4-6, 3V	A			
	IEC 61000-4-8, 3A/M	A			Criteria
	IEC 61000-4-11, Voltage dips >95%, 0.5 cycle	A			
	Voltage dips >30%, 25 cycles	A			
	Voltage dips >60%, 5 cycles	A			
	Voltage interruptions >95%, 250 cycles	B			

### 7. Mechanical

Parameter	Conditions/Description
Dimension	101.6 x 50.8 x 25.4 mm, Tolerance +/- 0.5mm.
Connector	CN1 --- AC input: Molex 5277 or equivalent. CN2 --- DC output: Molex 5273 or equivalent.
Pin Assignment	DC output pin 1, 2 : Vout (+) DC output pin 3, 4 : Vout (-)

