SPECIFICATION

For

SWITCHING POWER SUPPLY

M/N: MPI-S201 Series

Revision History

REV.	Nov. 10th 2010	Adding the output spec of fan connector.
		Revising the mechanical dimension.

FEATURES

- Universal Input: 90~264 Vac
- Active PFC Meets EN61000-3-2 & EN61000-3-3 Class D
- Conducted EMI meets CISPR/FCC Class B
- High Efficiency up to 92%
- 200W within 3 x 5 inch

1. Description

MPI-S201 series are a 200W single output, open frame switching power supply with PFC function for industrial application. The active PFC design meets EN61000-3-2 and EN61000-3-3 regulation and the high efficiency up to 92%.

Model	Output Voltage	Min. Load	Rated Load	Max. load	Line (Note 1) Regulation	Load (Note 2) Regulation	Voltage Setting (Note 3)	Ripple & Noise p-p (Note 4)	Efficiency
MPI-S201-12	**+12V**	0A	12.5A	16.67A	±0.5%	±1%	11.4-12.6V	1%	89%
MPI-S201-24	**+24V**	0A	6.25A	8.34A	±0.5%	±1%	22.8-25.2V	1%	90%
MPI-S201-36	**+36V**	0A	4.17A	5.56A	±0.5%	±1%	34.2-37.8V	1%	91%
MPI-S201-48	**+48V**	0A	3.13A	4.17A	±0.5%	±1%	45.6-50.4V	1%	92%

Max. output loading is 200W with 19CFM force air cooling and 150W convection cooled.

Note: 1) Line regulation is measured from high line to low line with rated load.

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

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

4) Measured by a 20MHz bandwidth limited oscilloscope and the each output is connected with a 220μF Electrolytic Capacitor and a 0.1μF Ceramic Capacitor.

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			20		ms
Inrush Current	At 240VAC at cold start			100	A
Leakage Current				3.5	mA

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			200		Watt

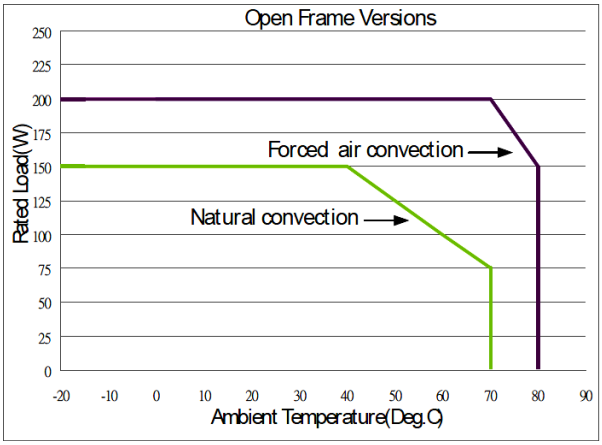
4. Interface Signals and Internal Protection

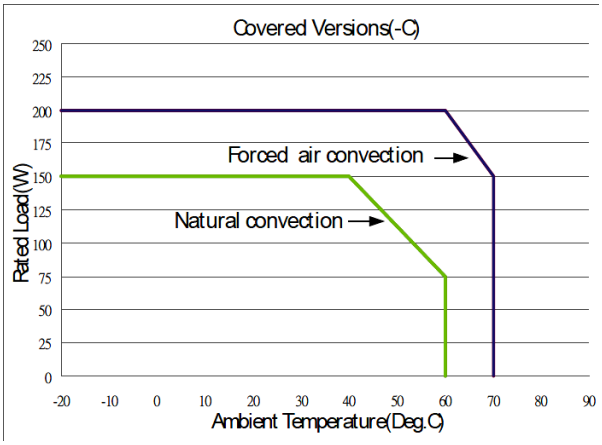
Parameter	Conditions/Description
Over Voltage Protection	Auto recovery
Short Circuit Protection	Automatic recovery upon of short circuit condition.

5. Environment Specification

Parameter	Conditions/Description	Min.	Nom.	Max.	Units
Operating Temperature	50~70˚C with Derating (See chart below)	-20		70	˚C
Storage Temperature		-20		+85	˚C

Derating curve





6. Safety Approvals, EMI and EMS Specification

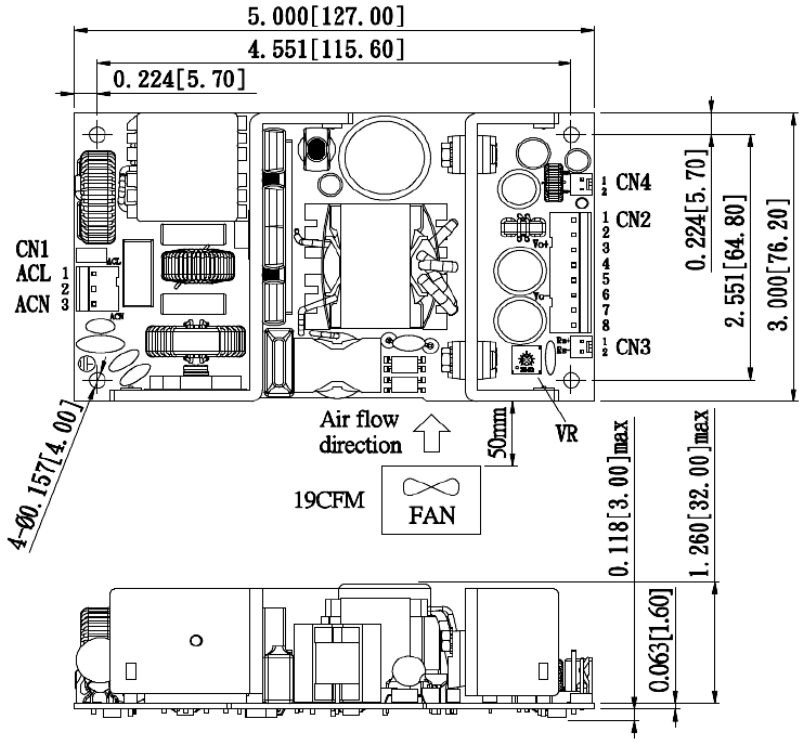
Parameter	Conditions/Description	Min.	Nom.	Max.	Units
Safety Approvals	UL, UL 60950-1, 1st edition		approved		
Hi-Pot	Input to output	4242			VDC
Radiation	EN 55022 / CISPR 22 & FCC Part 15	B			
Conduction	EN 55022 / CISPR 22 & FCC Part 15	B			Class
PFC	EN 61000-3-2 & EN 61000-3-3	D			
EMS	IEC 61000-4-2, 8KV air discharge and 6KV contact discharge	3			
	IEC 61000-4-3, 3V/M	2			
	IEC 61000-4-4, 2KV line & PE	3			
	IEC 61000-4-5, 2KV	3			Level
	IEC 61000-4-6, 10V	3			
	IEC 61000-4-8, 10A/M	3			
	IEC 61000-4-11				

7. Mechanical

Parameter	Conditions/Description
Dimension	127 x 76.2 x 36.6 mm, Tolerance +/- 0.5mm. With option cover 136 x 88 x 49mm +/-0.5mm
Connector	CN1 --- AC input: JST VHR series or equivalent. CN2 --- DC output: JST VHR series or equivalent. CN3 --- Remote sense: Molex 5051 or equivalent. CN4 --- Fan output: 12V / 0.5A, with connector type Molex 5051 or equivalent.
Pin Assignment	See below drawing

PIN CONNECTION		
CN1(AC input)		
PIN	Name	Note
1	ACL	Line
2	-	-
3	ACN	Neutral
CN2(DC Output)		
PIN	Name	Note
1~4	Vout(+)	+Vout
5~8	Vout(-)	Ground
CN3(Remote voltage sense)		
PIN	Name	Note
1	Rs+	Remote voltage sense+
2	Rs-	Remote voltage sense-
CN4(Fan output)		
PIN	Name	Note
1	FAN V+	Fan output+
2	FAN V-	Fan output-

Open Frame Versions



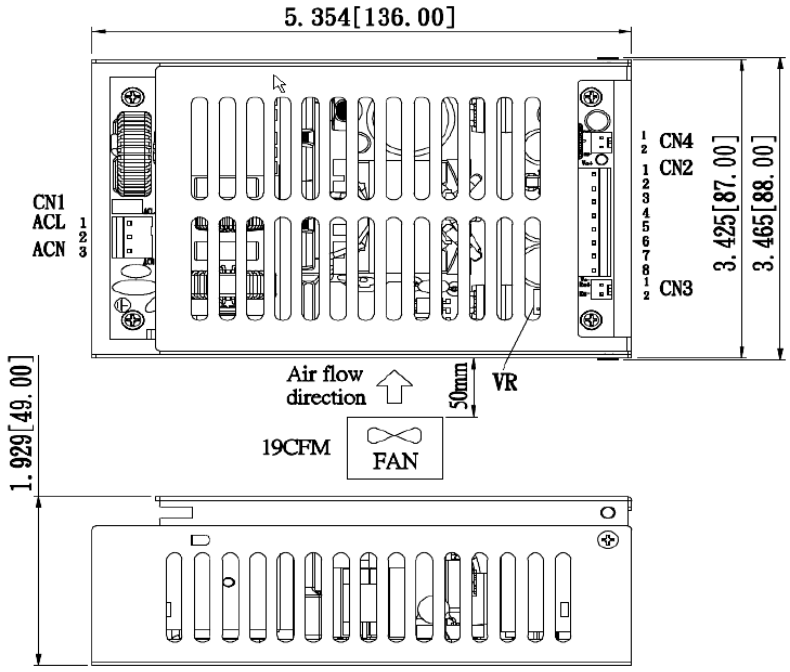
CN1:
PIN CONNECTION

Pin	Function
1	ACL
2	-
3	ACN

CN2:
PIN CONNECTION

Pin	Function	Pin	Function
1	Vout(+)	5	Vout(-)
2	Vout(+)	6	Vout(-)
3	Vout(+)	7	Vout(-)
4	Vout(+)	8	Vout(-)

Covered Versions (-C)



CN3:
PIN CONNECTION

Pin	Function
1	Rs+
2	Rs-

CN4:
PIN CONNECTION

Pin	Function
1	FAN V+
2	FAN V-

Typical at 25°C, nominal line and 60% load, unless otherwise Specified.