



# SPECIFICATION

For

SWITCHING ADAPTER

**M/N: MPE-G150 series**

## Revision history

REV.	DATE	DESCRIPTION
	Apr. 7 <sup>th</sup> 2013	Revised the EMS criteria.



**FEATURES**

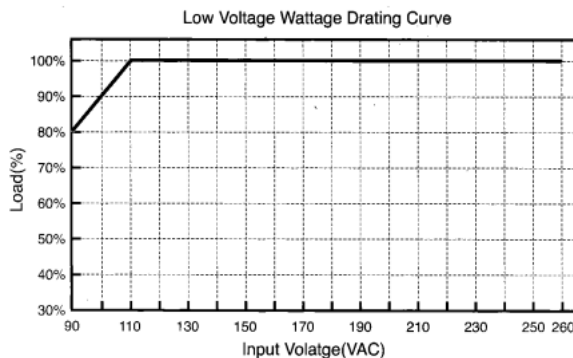
- Meet CEC Level V Compliant
- Meet 55022 Class “B” and CISPR/FCC class B, conducted.
- 150W adapter with active PFC

**1. Description**

MPE-G150 series are 150W switching adapter for IT applications. It meets CEC V and green power requirement.

Model	Output Voltage	Mini. Output Current	Rated Output Current	Line <sup>(Note 1)</sup> Regulation	Load <sup>(Note 2)</sup> Regulation	Voltage Setting <sup>(Note 3)</sup>	Ripple & Noise p-p <sup>(Note 4)</sup>	Efficiency <sup>(Note 5)</sup>
MPE-G150-12	+12V	0A	12.5A	±1%	±5%	±2.5%	2%	87%
MPE-G150-15	+15V	0A	10A	±1%	±5%	±2.5%	2%	87%
MPE-G150-18	+18V	0A	8.34A	±1%	±5%	±2.5%	2%	87%
MPE-G150-19	+19V	0A	7.9A	±1%	±5%	±2.5%	2%	87%
MPE-G150-24	+24V	0A	6.25A	±1%	±5%	±2.5%	2%	87%
MPE-G150-28	+28V	0A	5.36A	±1%	±5%	±2.5%	2%	87%
MPE-G150-30	+30V	0A	5A	±1%	±5%	±2.5%	2%	87%
MPE-G150-36	+36V	0A	4.17A	±1%	±5%	±2.5%	2%	87%
MPE-G150-48	+48V	0A	3.13A	±1%	±5%	±2.5%	2%	87%

- Note: 1) Line regulation is measuring from 100VAC to 240VAC with rated load.  
 2) Load regulation is measuring from 60% to 100% rated load and from 60% to 20% full load (60%±40% rated load).  
 3) The output at 60% rated load and input is nominal 110/220VAC.  
 4) Measured by a 20MHz bandwidth limited oscilloscope and the each output is connected with a 47µF Electrolytic Capacitor and a 0.1µF Ceramic Capacitor.  
 5) Measuring at nominal line and rated load.  
 6) Input voltage derating curve



**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	Nominal AC Input Voltage (115VAC), rated load.		8		ms
Input Current	Nominal AC Input Voltage (115VAC/230VAC), rated load.			1.5	A
Inrush Current	At 240VAC input, one cycle at 25°C.			120	A
Leakage current				3.5	mA



### 3. Output Specification

Parameter	Conditions/Description	Min.	Nom.	Max.	Units
Efficiency	Rated load, 230VAC.	See Chart of Description			
Minimum load		See Chart of Description			
Ripple & Noise	Rated load, 20MHz bandwidth	See Chart of Description			
Output Power	Continuous output power.	See Chart of Description			
Line Regulation	Less than $\pm 1\%$ at rated load with $\pm 10\%$ changing in input voltage.	See Chart of Description			
Load Regulation	Measured from 60% to 100% rated load and from 60% to 20% rated load ( $60\% \pm 40\%$ rated load).	See Chart of Description			

### 4. Interface Signals and Internal Protection

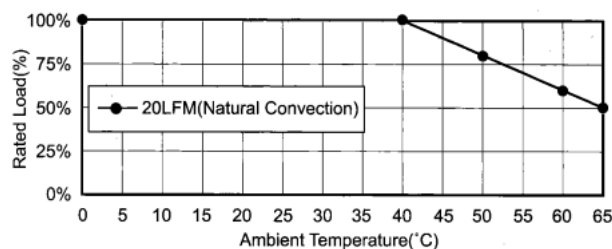
Parameter	Conditions/Description
Short Circuit Protection	Fully protected against short circuit. Automatic recovery upon of overload condition.
Over Voltage Protection	Fully protected against over voltage.

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

Parameter	Conditions/Description	Min.	Nom.	Max.	Units
Safety	UL, UL 60950-1	Approved			
	TUV, EN 60950-1	Design to meet			
	CB, IEC 60950-1	Design to meet			
	CEC	Level V			
Hi-Pot	Input to output	4242			VDC
Radiation	EN 55022 / CISPR 22 & FCC Part 15	B			Class
Conduction	EN 55022 / CISPR 22 & FCC Part 15	B			
EMS	IEC 61000-4-2, 8KV air discharge and 6KV contact discharge	A			Criteria
	IEC 61000-4-3, 3V/m	A			
	IEC 61000-4-4, 2KV line & PE	A			
	IEC 61000-4-5, L-N: 1KV; L/N-PE: 2KV	A			
	IEC 61000-4-6, 3V	A			
	IEC 61000-4-11	A			

### 6. Environment Specification

Parameter	Conditions/Description	Min.	Nom.	Max.	Units
Operating Temperature	At Rated load. Derating from 40 degree C				



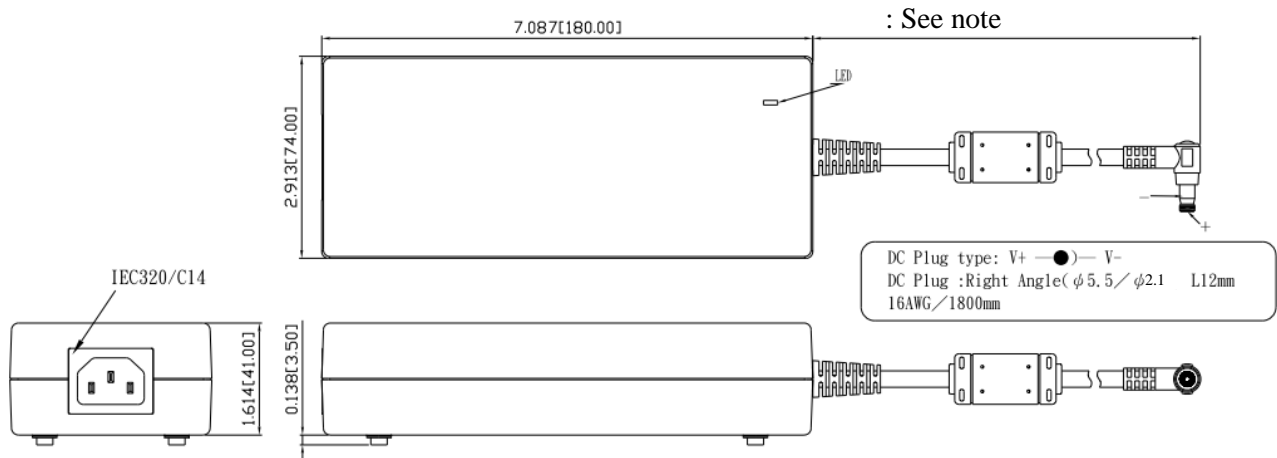
Storage Temperature		-20		+85	°C
Relative Humidity	Non-condensing.	5		95	%RH



### 7. Mechanical

Parameter	Conditions/Description
Dimension	180.0 x 74.0 x 41 mm, Tolerance +/- 0.02mm.
Connector	AC inlet : IEC 320/C14 DC output connector: 5.5 (outer) x 2.1 (inner) x 12 (length) mm Output cable : Cable length for MPE-G150-12 is 950mm max. Cable length for MPE-G150-15~MPE-G150-19 is 1220mm max. Cable length for MPE-G150-24~MPE-G150-48 is 1800mm max.

All Dimensions are in inches(mm)  
Tolerance: Inches: X.XXX±0.02  
Millimeters: X.XX±0.5  
UNIT: inches(mm)



Note : Cable length for MPE-G150-12 is 950mm max.  
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Cable length for MPE-G150-24~MPE-G150-48 is 1800mm max.