



# SPECIFICATION

For

SWITCHING ADAPTER

**M/N: MPE-G100 series**

## Revision history

REV.	Mar. 21 <sup>st</sup> 2012	Updated the safety approvals status.
REV.	Jan. 22 <sup>th</sup> 2013	Updated the safety approvals status.



## FEATURES

- Meet CEC Level V Compliant
- Meet 55022 Class “B” and CISPR/FCC class B, conducted.
- 100W adapter with active PFC

## 1. Description

MPE-G100 series are 100W 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-G100-12	+12V	0A	8.34A	±1%	±4%	±2%	1%	87%
MPE-G100-125	+12.5V	0A	8 A	±1%	±4%	±2%	1%	87%
MPE-G100-135	+13.5V	0A	7.33 A	±1%	±4%	±2%	1%	87%
MPE-G100-15	+15V	0A	6.67A	±1%	±4%	±2%	1%	87%
MPE-G100-18	+18V	0A	5.56A	±1%	±2%	±2%	1%	87%
MPE-G100-19	+19V	0A	5.21A	±1%	±2%	±2%	1%	87%
MPE-G100-20	+20V	0A	5 A	±1%	±2%	±2%	1%	87%
MPE-G100-24	+24V	0A	4.17A	±1%	±2%	±2%	1%	87%
MPE-G100-28	+28V	0A	3.54A	±1%	±2%	±2%	1%	87%
MPE-G100-29	+29V	0A	3.41A	±1%	±2%	±2%	1%	87%
MPE-G100-30	+30V	0A	3.30A	±1%	±2%	±2%	1%	87%
MPE-G100-36	+36V	0A	2.78A	±1%	±2%	±2%	1%	87%
MPE-G100-48	+48V	0A	2.08A	±1%	±2%	±2%	1%	87%
MPE-G100-54	+54V	0A	1.85	±1%	±2%	±2%	1%	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 115/230VAC.

4) Measured by a 20MHz bandwidth limited oscilloscope and the each output is connected with a 10µF Electrolytic Capacitor and a 0.1µF Ceramic Capacitor.

5) Measuring at nominal line and rated load.

## 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.		20		ms
Input Current	Nominal AC Input Voltage (115VAC/230VAC), rated load.			1.5	A
Inrush Current	Nominal AC Input Voltage (240VAC), 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, 115VAC. Varies with distribution of loads among output.	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		See Chart of Description			
Load Regulation	Measured from 60% to 100% rated load and from 60% to 20% rated load (60% ± 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	Option

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

Parameter	Conditions/Description	Min.	Nom.	Max.	Units	
Safety	IEC 60950-1, 2nd edition	CE (LVD) Declaration				
	EN 60950-1, 2nd edition					
	UL 60950-1, 2nd edition	UL approved cUL approved Level V				
	CSA C22.2 No. 60950-1-07, 2nd Edition					
	CEC					
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-G: 2KV	A				
	IEC 61000-4-6, 3V	A				
	IEC 61000-4-11, dips > 30% with 25 periods	dips > 60% with 100mS	A			
		dips > 95% with 0.5 periods	A			
interruptions > 95% with 250 periods		B				

### 6. Environment Specification

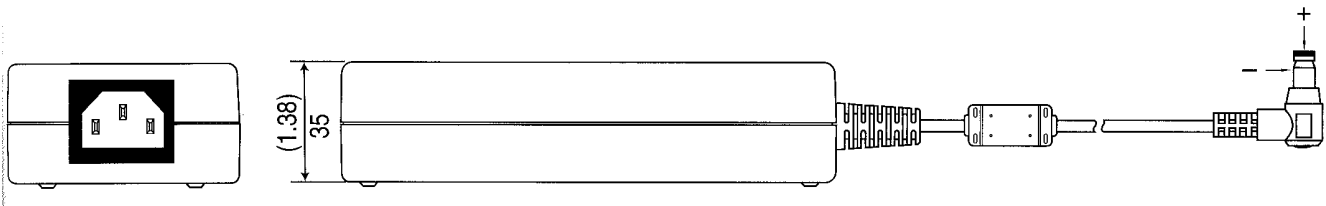
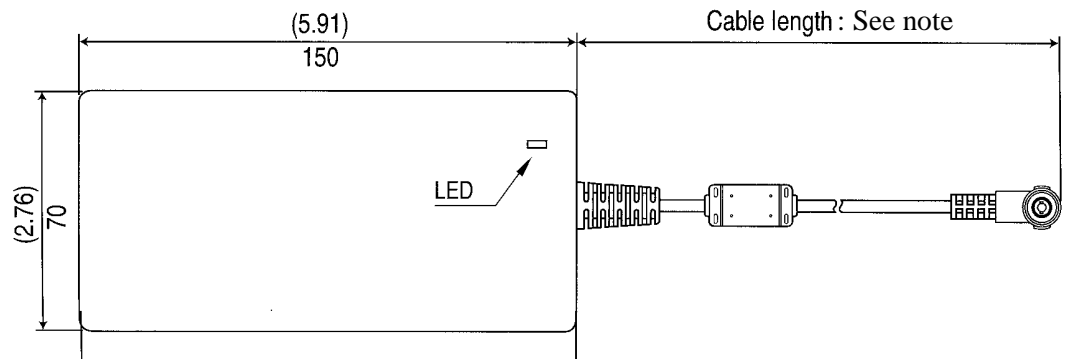
Parameter	Conditions/Description	Min.	Nom.	Max.	Units
Operating Temperature	At Rated load.	0		40	°C
Storage Temperature		-20		+85	°C
Relative Humidity	Non-condensing.	5		95	%RH

### 7. Mechanical

Parameter	Conditions/Description
Dimension	150.0 x 70.0 x 35 mm, Tolerance +/- 0.5mm.
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-G100-12~MPE-G100-15 is 1220mm max. Cable length for MPE-G100-18~MPE-G100-54 is 1800mm max.



Unit: mm (in)



Note : Cable length limit for MPE-G100-12~MPE-G100-15 is 1220mm max.  
Cable length limit for MPE-G100-18~MPE-G100-54 is 1800mm max.