



SPECIFICATION

For

SWITCHING POWER ADAPTER

M/N: MPE-CG45 Series

Revision history

REV.	Aug. 10 th 2011	Updated the efficiency.



FEATURES

- Universal AC input 90-264VAC
- EN 55022/CISPR22 and FCC Part 15 Class B
- High Efficiency $\geq 86.2\%$ (average efficiency)
- CEC Level V compliant (output cable length $\leq 1800\text{mm}$) (MPE-CG45-12 output cable $\leq 720\text{mm}$)

1. Description

MPE-CG45 series are families of single output, 45-48W AC/DC desktop switching mode adapters, and it meets CEC V.

Model	Output Voltage	Mini. Output Current	Rated Output Current	Line ^(Note 1) Regulation	Load ^(Note 2) Regulation	Voltage Setting ^(Note 3)	Ripple & Noise p-p ^(Note 4)	Average Efficiency ^(Note 6)
MPE-CG45-12 (Note 5)	+12V	0A	3.75A	$\pm 1\%$	$\pm 3\%$	$\pm 2\%$	120mV-p-p	
MPE-CG45-15	+15V	0A	3.00A	$\pm 1\%$	$\pm 3\%$	$\pm 2\%$	150mV-p-p	
MPE-CG45-18	+18V	0A	2.50A	$\pm 1\%$	$\pm 2\%$	$\pm 2\%$	180mV-p-p	86.2%
MPE-CG45-19	+19V	0A	2.37A	$\pm 1\%$	$\pm 2\%$	$\pm 2\%$	190mV-p-p	
MPE-CG45-24	+24V	0A	1.88A	$\pm 1\%$	$\pm 2\%$	$\pm 2\%$	240mV-p-p	
MPE-CG45-48	+48V	0A	1.00A	$\pm 1\%$	$\pm 2\%$	$\pm 2\%$	480mV-p-p	

Note: 1) Line regulation measured from 100VAC to 240VAC, full load.

2) Load regulation measured from 60% to 100% full load and from 60% to 20% load (60% +/- 40% full load)

3) Voltage setpoint at 60% load

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

5) Cable length of MPE-CG45-12 is only max. 720mm 16AWG.

6) Input 115VAC, and average efficiency at 25%, 50%, 75%, and 100% 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.		8		ms
Inrush Current	Input Voltage (240VAC), .			70	A

3. Output Specification

Parameter	Conditions/Description	Min.	Nom.	Max.	Units
Efficiency	Measuring at input 115Vac for average efficiency.		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	Measured from 100VAC to 240VAC, full load		See Chart of Description		
Load Regulation	Measured from 60% to 100% full load and from 60% to 20% load(60% +/- 40% full load)		See Chart of Description		



4. Internal Protection

Parameter	Conditions/Description
Over Load Protection	Fully protected against output overload and short circuit.
Short Circuit Protection	Continuous

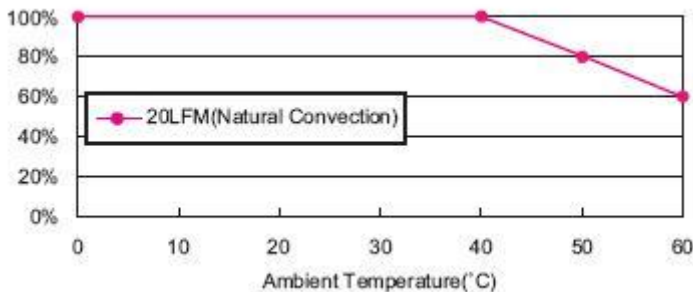
5. Safety Approvals, EMI and EMS Specification

Parameter	Conditions/Description	Min.	Nom.	Max.	Units
Safety	UL, cUL 60950-1		Approved		
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	3			Level
	IEC 61000-4-3, 3V/M	3			
	IEC 61000-4-4, 2KV line & PE	3			
	IEC 61000-4-5, 2KV	3			
	IEC 61000-4-6, 10V	3			
	IEC 61000-4-8, 10A/M	3			
	IEC 61000-4-11				

6. Environment Specification

Parameter	Conditions/Description	Min.	Nom.	Max.	Units
Operating Temperature	Linear derating from 40 degree C. Refer derating below	0		60	°C
Storage Temperature		-20		85	°C
Relative Humidity	Non-condensing.	5		95	%RH

Derating Curve

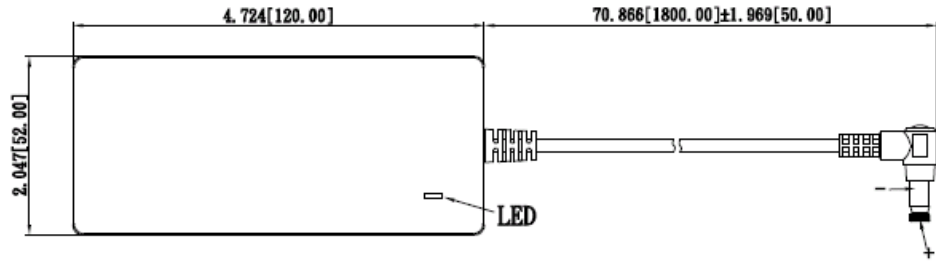


7. Mechanical

Parameter	Conditions/Description
Dimension	120 x 52 x 31 mm, Tolerance +/- 0.4mm.

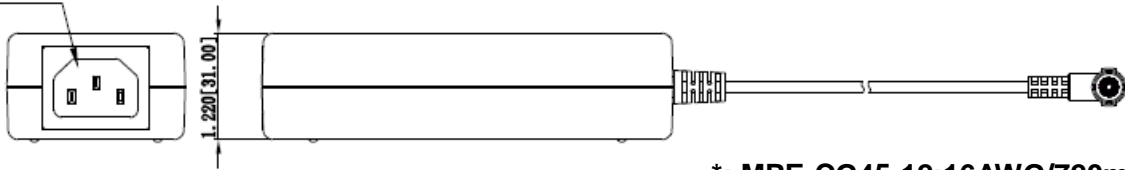


UNIT : inches(mm)



DC Plug type: V+ —●— V-
DC Plug :Right Angle(φ 5.5 / φ 2.1) L12mm
18AWG / 1800mm *

IEC320/C14



*: MPE-CG45-12:16AWG/720mm