

# MPU60C SERIES

## 63W Desk Top Switching Power Supplies For Medical Equipment

### Description:

The MPU60C series of AC/DC switching mode power supplies provide 63 Watts of continuous output power . All supplies are UL94V-1 min compliant. They are suited for use in hospital instrument and many other applications. All models meet FCC Part-18 class B and CISPR-11 EN55011 class B emission Limits and are designed to comply with UL/c-UL(UL 60601-1:2<sup>nd</sup> Edition) ,TUV/T-mark (EN 60601-1:2<sup>nd</sup> Edition), and new CE requirements. All units are 100% burned in and tested.



### Features:

- Wide Operating Voltage 90 to 264 VAC,47 to 63 Hz
- IEC-320-C6 Input Inlet
- Single Output
- Optional Output Connector (See appendix)
- Input Surge Current, Over Voltage And Over Load protection
- Output Voltage Protection(Crowbar Desing)
- Energy Star 2.0, Efficiency level V
- Class I
- 3 year warranty

### Safety Approvals :



### Electrical Characteristics:

Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Vin	Safety Approvals Input Voltage Range		100		240	VAC
	Operating Voltage		90		264	VAC
fin	Input Frequency		47		63	Hz
Po	Output Power Range	Vin=90 to 264VAC	0		63	W
Vo	Output Voltage Range		See rating chart			V
Io	Output Current Range		See rating chart			A
Iil	Input Current (Low Line)	Io=Full load, Vin=115 VAC			1.62	A
Iih	Input Current (High Line)	Io=Full load, Vin=230 VAC			0.72	A
Irl	Low Line Inrush Current	Io=Full load, 25°C ,Cool start, Vin=115VAC		26	30	A
Irh	High Line Inrush Current	Io=Full load, 25°C ,Cool start, Vin=230VAC		43	47	A
* Eff	Efficiency	Io=Full Load, Vin=230VAC	87		92	%
REG-i	Line Regulation	Io=Full Load			1	%
REG-o	Load Regulation	Vin=230VAC			5	%
OVP	Over Voltage Protection		112		132	%
OCP	Over Current Protection		110		150	%
Ttr	Time of Transient Response	Io=Full Load to Half Load, Vin=100VAC			4	mS
Thold	Hold-Up Time	Io=Full Load, Vin=110VAC	16			mS
Ts	Start Up Time	Io=Full Load, Vin=100VAC	0.3	1	2	S
Vp-p	Ripple & Noise (Peak to Peak)	Full Load, Vin=100VAC			1	%
Ilk	Safety Ground Leakage Current	Io= Full Load, Vin=240VAC			0.1	mA
Pno	No-Load Power Consumption	No load, Vin=240VAC	0.3	0.4	0.5	W
TC	Temperature Coefficient	All output	-0.04		0.04	%/°C

\* Note: The specifics for testing the energy efficiency of MPU60 Series are outlined in a separate document titled "Test Method for Calculating the Energy Efficiency of Single-Voltage External Ac-Dc and Ac-Ac PowerSupplies (August 11, 2004)," which is available on the ENERGY STAR Website.

### Environmental :

Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Toper	Operating Temperature		0	50	70	°C
Tstg	Storage Temperature		-40		85	°C
Ho	Operating Humidity		0		95	%
Hr	Storage Humidity		0		75	%
MTBF	Operating Temperature at 25°C, Calculated per MIL-HDBK-217F		0.1M			Hrs
Pd	Derate linearly from 100% load at 50°C to 50% load at 70°C					

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### Safety Specifications:

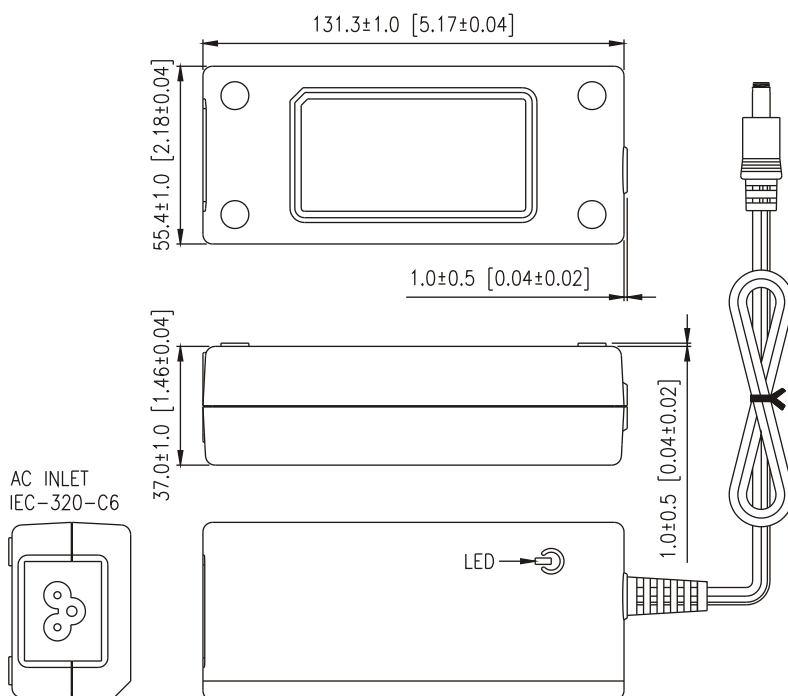
Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Vps	Dielectric Withstanding Voltage for Primary to secondary	Primary to secondary	5656			VDC
Vpg	Dielectric Withstanding Voltage for Primary to Ground	Primary to ground	2828			VDC
Ris	Isolation Resistance	Test Voltage = 500VDC	50			MΩ
CISPR	EMI requirements for CISPR-11	Vin=220VAC	B			CLASS
FCC	EMI requirements for FCC PART-18	Vin=110VAC	B			CLASS

### Output Voltage And Current Rating Chart (Single Output) :

Model Number	Output Voltage	Output Current	Total Regulation <sup>Ⓞ</sup>	Maximum Output Power
MPU60C-105	12 VDC	5.25 A	5%	63W
MPU60C-106	15 VDC	4.20 A	5%	63W
MPU60C-107	18 VDC	3.50 A	5%	63W
MPU60C-108	24 VDC	2.62 A	3%	63W
MPU60C-109	30 VDC	2.10 A	3%	63W
MPU60C-110	36 VDC	1.75 A	3%	63W
MPU60C-111	48 VDC	1.31 A	3%	63W

- Ⓞ MPU60C-105~107 are required to use AWG#16/2C/4FT output cable.  
 MPU60C-108~110 are required to use AWG#18/2C/6FT output cable.  
 The regulation and efficiency will be changed by modified output cable.

### Mechanical Specifications:



#### Note:

1. Dimensions are shown in inches or mm.
2. Weight: 330-380gs approx.
3. Optional output connector:  
See page Appendix.