

# MPU 12A SERIES

## 12W Wall Mount Switching Power Supplies For Medical Equipment

### Description:

The MPU12A series of AC/DC switching mode power supplies provide 12 Watts of continuous output power. All supplies are UL 94V-1 min compliant, include a 2 prong plug-in mains connector for wide range of Blood Pressure Measurements, Frequency Therapy Device and Dental Curing light applications. All models are designed to comply with UL 60601-1, First Edition (2003) and CAN/CSA-C22.2 No.601.1-M90 with updates 1 and 2 requirements. All units are 100% burned in and tested.

### Features:

- Wide Input Voltage 90 to 264 VAC, 47 to 63 Hz
- 2 Prong Plug-In Mains Connector
- Output Voltage Available From 5VDC Thru 27VDC
- Optional Output Connector (See appendix)
- Single Output
- Class II Insulation (Double Insulation)
- Over Voltage and Over Load protection.
- 2 year warranty



### Safety Approvals:



### Electrical Characteristics:

Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Vin	Input Voltage	Operating Voltage	90		264	VAC
Fin	Input Frequency		47		63	Hz
Wo	Output Power Range	Vin=90 to 264VAC	0		12	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=115VAC		0.25	0.35	A
Iih	Input Current (High Line)	Io=Full load, Vin=230VAC		0.17	0.22	A
Irl	Low Line Inrush Current	Io=Full load, 25°C, Cool start, Vin=115VAC		14	16	A
Irh	High Line Inrush Current	Io=Full load, 25°C, Cool start, Vin=230VAC		28	30	A
Eff	Efficiency	Io=Full Load, Vin=230VAC	68	72	80	%
REG-i	Line Regulation	Io=Full Load		0.5	1	%
REG-o	Load Regulation	Vin=230VAC		3	5	%
OVP	Over Voltage Protection		112		132	%
OCP	Over Current Protection		110		150	%
Ttr	Transient Response	Io=Full Load to Half Load, Vin=100VAC			4	mS
Thold	Hold-Up Time	Io=Full Load, Vin=110VAC	10	16		mS
Ts	Start Up Time	Io=Full Load, Vin=100VAC	0.3	1	2	S
Vrn	Ripple & Noise (Peak to Peak)	Full Load, Vin=90VAC		0.5	1	%
Tc	Temperature Coefficient	All output	-0.04		0.04	%/°C

### Environmental :

Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Toper	Operating Temperature		0		70	°C
Tstg	Storage Temperature		-40		85	°C
Hr	Relative Humidity	No-Condensing	5		95	%
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	5803			VDC
CISPR	EMI requirements for CISPR-11	Vin=230VAC	B			CLASS
FCC	EMI requirements for FCC PART-18	Vin=120VAC	B			CLASS

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

Model Number	Output Voltage	Output Current	Total Regulation	Maximum Output Power	Safety
MPU12A-102	5 ~ 6 VDC	2.00 ~ 1.66 A	5%	10W	UL
MPU12A-103	6 ~ 8 VDC	2.00 ~ 1.50 A	5%	12W	UL
MPU12A-104	8 ~ 11 VDC	1.50 ~ 1.09 A	5%	12W	UL
MPU12A-105	11 ~ 13 VDC	1.09 ~ 0.92 A	5%	12W	UL
MPU12A-106	13 ~ 16 VDC	0.92 ~ 0.75 A	5%	12W	UL
MPU12A-107	16 ~ 21 VDC	0.75 ~ 0.57 A	3%	12W	UL
MPU12A-108	21 ~ 27 VDC	0.57 ~ 0.44 A	3%	12W	UL

### Mechanical Specifications:( USA Type)

Note:

1. Dimensions are shown in mm.
2. Weight: 160gs approx.
3. Optional output connector:  
See page Appendix.

