E-Star Power Development Co., Ltd. (E-STAR)
No.305, Sec. 2, Jhongshan Rd., Banciao City, Taipei County 22067, Taiwan
Phone : 886-2-2957 5580 Fax : 886-2-2957 7473

12W Wall Mount type Medical power supply < MPU12A-10X

MPU12A 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.
This series is suitable for use in Blood Pressure measurements, Frequency Therapy Device and Dental Curing light applications.
All models are designed to comply with UL/c-UL(UL60601-1), and new CE requirements.**

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
- Over Voltage and Over Load protection.
- Over temperature Detection
- 3 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
Po	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	70.8	72	85	%
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	Time of 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
Tjsd	Thermal Shutdown ① by Junction Temperature Controller	The parameter is not subject to production test-verified by design/characterization of integrated controller.	-25		130	°c

① As long as faulty conditions have been removed , the adaptor will automatically power up as usual.

Environmental :

Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Toper	Operating Temperature		0	50	70	℃
Tstg	Storage Temperature		-40		85	℃
Hr	Relative Humidity	No-Condensing	5		95	%
MTBF	Operating Temperature at 25°C, Calculated per MIL-HDBK-217F		0.1			M Hrs
Pd	Derate linearly from 100% load at 50°C to 50% load at 70°C					

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MPU12A SERIES

12W Wall Mount Switching Power Supplies For Medical Equipment

Safety Specifications:

Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Vps	Dielectric Withstanding Voltage for Primary to secondary	Primary to secondary	5803			VDC
CISPR	Meet EMI requirements: CISPR-11	Vin=120VAC, 60Hz	B			CLASS
FCC	Meet EMI requirements: CRF 47, Part18	Vin=120VAC, 60Hz	B			CLASS

Output Voltage And Current Rating Chart (Single Output) :

Model Number	Output Voltage	Output Current	Total ① Regulation	Maximum Output Power
MPU12A-102	5 ~ 6 VDC	2.00 ~ 1.66 A	5%	10W
MPU12A-103	6 ~ 8 VDC	2.00 ~ 1.50 A	5%	12W
MPU12A-104	8 ~ 11 VDC	1.50 ~ 1.09 A	5%	12W
MPU12A-105	11 ~ 13 VDC	1.09 ~ 0.92 A	5%	12W
MPU12A-106	13 ~ 16 VDC	0.92 ~ 0.75 A	5%	12W
MPU12A-107	16 ~ 21 VDC	0.75 ~ 0.57 A	3%	12W
MPU12A-108	21 ~ 27 VDC	0.57 ~ 0.44 A	3%	12W

① The total regulation on model 102~103 is required to use AWG#18 / 6FT output cable.
The total regulation on model 104~108 is required to use AWG#20 / 6FT output cable.
The regulation and efficiency will be changed by modified output cable.

Mechanical Specifications:(USA Type)

Note:
1. Dimensions are shown in mm.
2. Weight: 130gs approx.
3. Optional output connector:
See page Appendix.