

# HPU12A SERIES

**12W Wall mount type medical power supplies For Home health care applications**

## Description:

The HPU12A series of AC/DC switching mode power supplies provide 12 watts of continuous output power. This series is suitable for use in Home health care and portable 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) ,TUV/T-mark(EN 60601-1) 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
- CEC level V and Energy Star 2.0 Compliance
- 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
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	77.7			%
REG-i	Line Regulation	Io=Full Load			1	%
REG-o	Load Regulation	Vin=230VAC			5	%
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			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			1	%
TC	Temperature Coefficient	All output	-0.04		0.04	%/°C
Tj <sub>sd</sub>	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	40	70	°C
Tstg	Storage Temperature		-40		85	°C
Hr	Relative Humidity	No-Condensing	5		95	%
MTBF	Operating Temperature at 25°C, Calculated per MIL-HDBK-217F		0.1M			Hrs
Pd	Derate linearly from 100% load at 40°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	5600			VDC
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	Maximum Output Power
HPU12A-102	5 ~ 6 VDC	2.00 ~ 1.66 A	5%	10W
HPU12A-103	6 ~ 8 VDC	2.00 ~ 1.50 A	5%	12W
* HPU12A-104	8 ~ 11 VDC	1.50 ~ 1.09 A	5%	12W
* HPU12A-105	11 ~ 13 VDC	1.09 ~ 0.92 A	5%	12W
* HPU12A-106	13 ~ 16 VDC	0.92 ~ 0.75 A	5%	12W
* HPU12A-107	16 ~ 21 VDC	0.75 ~ 0.57 A	3%	12W
* HPU12A-108	21 ~ 27 VDC	0.57 ~ 0.45 A	3%	12W

Mark " \* " means approved by CEC level V.

The total regulation on 102~104 required to use AWG#18/6FT output cable.

The total regulation on 105~108 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.

