

# HPU100 SERIES

**100W Desk top type medical power supplies for Home health care applications.**

## Description:

The HPU100 series of AC/DC switching mode power supplies provide 100 Watts of continuous output power . All supplies are UL94V-1 min compliant, include IEC-320-C14 input for worldwide applications. They are suited for use in Home health care 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. All units are 100% burned in and tested.

## Features:

- Wide Input Voltage 90 to 260 VAC,47 to 63 Hz
- IEC-320-C14 Input Inlet
- Single Output
- Output Voltage Available From 11VDC Thru 48VDC
- Optional Output Connector (See appendix)
- Input Surge Current, Over Voltage And Over Load protection
- Output Voltage Protection
- Active Power Factor Correction
- Class I
- 2 year warranty



## Safety Approvals :



## Electrical Characteristics:

Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
V <sub>in</sub>	Input Voltage	Operating Voltage	90		260	VAC
f <sub>in</sub>	Input Frequency		47		63	Hz
PF	Power Factor Correction	I <sub>o</sub> =Full load, V <sub>in</sub> =230 VAC	0.95		1	
P <sub>o</sub>	Output Power Range	V <sub>in</sub> =90 to 260 VAC	0		100	W
V <sub>o</sub>	Output Voltage Range		See rating chart			V
I <sub>o</sub>	Output Current Range		See rating chart			A
I <sub>il</sub>	Input Current (Low Line)	I <sub>o</sub> =Full load, V <sub>in</sub> =115 VAC			1.35	A
I <sub>ih</sub>	Input Current (High Line)	I <sub>o</sub> =Full load, V <sub>in</sub> =230 VAC			0.5	A
I <sub>rl</sub>	Low Line Inrush Current	I <sub>o</sub> =Full load, 25°C ,Cool start, V <sub>in</sub> =115VAC		44	50	A
I <sub>rh</sub>	High Line Inrush Current	I <sub>o</sub> =Full load, 25°C ,Cool start, V <sub>in</sub> =230VAC		85	100	A
E <sub>ff</sub>	Efficiency	I <sub>o</sub> =Full Load, V <sub>in</sub> =230VAC	85	87	90	%
REG-i	Line Regulation	I <sub>o</sub> =Full Load		0.5	1	%
REG-o	Load Regulation	V <sub>in</sub> =230VAC		3	5	%
OVP	Over Voltage Protection		112		132	%
OCP	Over Current Protection		110		150	%
T <sub>tr</sub>	Time of Transient Response	I <sub>o</sub> =Full Load to Half Load, V <sub>in</sub> =100VAC			4	mS
Thold	Hold-Up Time	I <sub>o</sub> =Full Load, V <sub>in</sub> =110VAC	12			mS
T <sub>s</sub>	Start Up Time	I <sub>o</sub> =Full Load, V <sub>in</sub> =100VAC	0.3	1.5	2	S
V <sub>rn</sub>	Ripple & Noise (Peak to Peak)	Full Load, V <sub>in</sub> =90VAC		0.5	1	%
I <sub>lk</sub>	Safety Ground Leakage Current	I <sub>o</sub> = Full Load, V <sub>in</sub> =240 VAC/60Hz		0.15	0.25	mA
TC	Temperature Coefficient	All output	-0.04		0.04	%/°C

## Environmental :

Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
T <sub>oper</sub>	Operating Temperature		0		70	°C
T <sub>stg</sub>	Storage Temperature		-40		85	°C
H <sub>r</sub>	Relative Humidity		5		95	%
MTBF	Operating Temperature at 25°C, Calculated per MIL-HDBK-217F		0.1M			Hrs
P <sub>d</sub>	Derate linearly from 100% load at 40°C to 50% load at 70°C					

# HPU 100 SERIES

**100W Desk top type medical power supplies for Home health care applications.**

## Safety Specifications:

Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
V <sub>ps</sub>	Dielectric Withstanding Voltage for Primary to secondary	Primary to secondary	5600			VDC
V <sub>pg</sub>	Dielectric Withstanding Voltage for Primary to Ground	Primary to ground	2800			VDC
R <sub>is</sub>	Isolation Resistance	Test Voltage = 2100VDC	50			MΩ
CISPR	EMI requirements for CISPR-11	Vin=230VAC	B			CLASS
FCC	EMI requirements for FCC PART-18	Vin=120VAC	B			CLASS

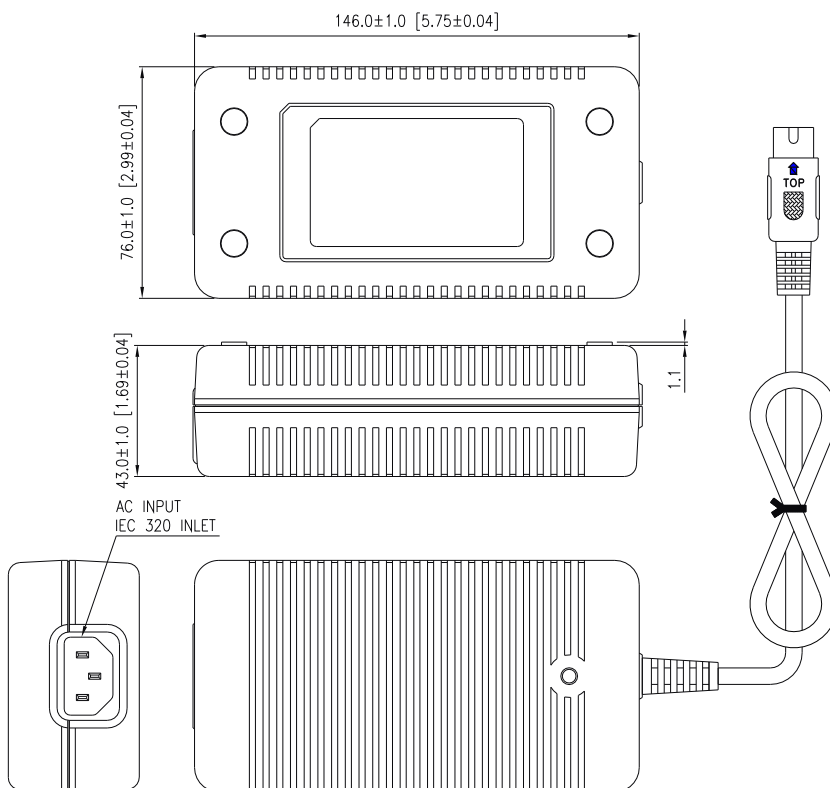
## Output Voltage And Current Rating Chart (Single Output) :

Model Number	Output Voltage	Output Current	Total Regulation ①	Maximum Output Power
HPU100-105	11 ~ 13 VDC	9.09 ~ 7.69 A	5%	100W
HPU100-106	13 ~ 16 VDC	7.69 ~ 6.25 A	4%	100W
HPU100-107	16 ~ 21 VDC	6.25 ~ 4.76 A	4%	100W
HPU100-108	21 ~ 27 VDC	4.76 ~ 3.70 A	4%	100W
HPU100-109	27 ~ 33 VDC	3.70 ~ 3.03 A	3%	100W
HPU100-111	40 ~ 48 VDC	2.50 ~ 2.08 A	3%	100W

The output voltage under 30V had been approved by TUV/PSE.

① The total regulation on each model is required to use AWG#18×3C+AWG#16×3C/4FT output cable.  
The regulation will be changed by modified output cable.

## Mechanical Specifications:



Note:

1. Dimensions are shown in inches or mm.
2. Weight: 460-800gs approx.
3. Optional output connector:  
See page Appendix.