HPU31A SERIES

30W Desk top type medical power supplies for Home health care applications

Description:

The HPU31A series of AC/DC switching mode power supplies provide 30 Watts of continuous output power . All supplies are UL94V-1 min compliant, include IEC-320-C18 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 264 VAC,47 to 63 Hz
- IEC-320-C18 Input Inlet
- Single Output
- Output Voltage Available From 5VDC Thru 48VDC
- Optional Output Connector (See appendix)
- Over Voltage Protection (Crowbar Design)
- Input Surge Current, Over Voltage And Over Load protection
- CEC level V and Engergy Star 2.0 Compliance
- Approved as Limited Power Source (LPS).
- Class II
- 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		30	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			0.9	A
Iih	Input Current (High Line)	Io=Full load, Vin=230 VAC			0.34	A
Irl	Low Line Inrush Current	Io=Full load, 25°C ,Cool start, Vin= 115VAC		16	24	A
Irh	High Line Inrush Current	Io=Full load, 25°C ,Cool start, Vin= 230VAC		32	48	A
Eff	Efficiency	Io=Full Load, Vin=230VAC	78	85	88	%
REG-i	Line Regulation	Io=Full Load		0.5		%
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	12			mS
Ts	Start Up Time	Io=Full Load, Vin=100VAC	0.3	1.5	2	S
Vrn	Ripple & Noise (Peak to Peak)	Full Load, Vin=90VAC			1	%
TC	Temperature Coefficient	All output	-0.04		0.04	%/°C

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		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					

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

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Output Voltage And Current Rating Chart (Single Output) :

Model Number	Output Voltage	Output Current	Total Regulation	Maximum Output Power
HPU31A-102	5 ~ 6 VDC	4.00 ~ 3.33 A	5%	20W
HPU31A-103	6 ~ 8 VDC	3.83 ~ 2.87 A	5%	23W
HPU31A-104	8 ~ 11 VDC	3.38 ~ 2.45 A	5%	27W
HPU31A-105	11 ~ 13 VDC	2.74 ~ 2.30 A	5%	30W
HPU31A-106	13 ~ 16 VDC	2.30 ~ 1.88 A	5%	30W
HPU31A-107	16 ~ 21 VDC	1.88 ~ 1.43 A	5%	30W
HPU31A-108	21 ~ 27 VDC	1.43 ~ 1.11 A	5%	30W
HPU31A-109	27 ~ 33 VDC	1.11 ~ 0.91 A	3%	30W
HPU31A-110	33 ~ 40 VDC	0.91 ~ 0.75 A	3%	30W
HPU31A-111	40 ~ 48 VDC	0.75 ~ 0.63 A	3%	30W

Mechanical Specifications:

Note:
1. Dimensions are shown in inches or mm.
2. Weight: 265-280gs approx.
3. Optional output connector:
   See page Appendix.

