HPU12A SERIES

12W Wall mount type medical power supplies For 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 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 60601-1:2nd Edition) ,TUV/T-mark(EN 60601-1:2nd Edition) and new CE requirements.

Features:

- Wide Operating Voltage 90 to 264 VAC,47 to 63 Hz
- 2 Prong Plug-In Mains Connector
- Optional Output Connector (See appendix)
- Single Output
- Class II
- Energy Star 2.0, Efficiency level V
- Over Load protection.
- 2 year warranty

Safety Approvals:

Electrical Characteristics:

Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Vin	Safety Approvals Input Voltage Range		100		240	VAC
	Operate Voltage Range		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
Vp-p	Ripple & Noise(Peak to Peak)	Full Load, Vin=90VAC			1	%
Ilk	Safety Ground Leakage Current	Io=Full Load, Vin=230VAC			0.1	mA
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	40	70	°C
Tstg	Storage Temperature		-40		85	°C
Ho	Operating Humidity		0		95	%
Hr	Storage Humidity		0		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	5656			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.

HPU12A-102~104 are required to use AWG#18/6FT output cable.

HPU12A-105~108 are 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.