

# MPU 130 SERIES

## 130W Desk Top Switching Power Supplies For Medical Equipment.

### Description:

The MPU130 series of AC/DC switching mode power supplies provide 130 Watts of continuous output power . All supplies are UL94V-1 min compliant. They are suited for use in hospital instrument and many other 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 60601-1:2<sup>nd</sup> Edition) ,TUV/T-mark (EN 60601-1:2<sup>nd</sup> Edition) and new CE requirements. All units are 100% burned in and tested.



### Features:

- Wide Operating Voltage 90 to 260 VAC,47 to 63 Hz
- IEC-320-C14 Input Inlet
- Single Output
- Optional Output Connector (See appendix)
- Input Surge Current, Over Voltage And Over Load protection
- Output Voltage Protection (Crowbar Design)
- Ultra-low leakage current (under 0.1mA)
- Active Power Factor Correction
- Class I
- Energy Star 2.0, Efficiency level V
- ON/OFF SWITCH (Optional)
- 3 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		260	VAC
fin	Input Frequency		47		63	Hz
PF	Power Factor Correction	Io=Full load, Vin=230 VAC	0.95		1	
Po	Output Power Range	Vin=90 to 260 VAC	0		130	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			1.4	A
Iih	Input Current (High Line)	Io=Full load, Vin=230 VAC			0.7	A
Irl	Low Line Inrush Current	Io=Full load, 25°C ,Cool start, Vin=115VAC			30	A
Irh	High Line Inrush Current	Io=Full load, 25°C ,Cool start, Vin= 230VAC			50	A
Eff	Efficiency	Io=Full Load, Vin=230VAC	87		89	%
REG-i	Line Regulation	Io=Full Load		0.5	1	%
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	16			mS
Ts	Start Up Time	Io=Full Load, Vin=100VAC			2	S
Vp-p	Ripple & Noise (Peak to Peak)	Full Load, Vin=90VAC			1	%
Ilk	Safety Ground Leakage Current	Io= Full Load, Vin =240 VAC/60Hz			0.1	mA
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
Ho	Operating Humidity		0		95	%
Hr	Storage Humidity		0		75	%
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
Vpg	Dielectric Withstanding Voltage for Primary to secondary	Primary to ground	2828			VDC
Ris	Isolation Resistance	Io=Full load, Vin=230VAC	50			MΩ
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 ①	Maximum Output Power
MPU130-105	12 VDC	10.84 A	5%	130W
MPU130-108	24 VDC	5.42A	3%	130W

- ① MPU130-105 is required to use AWG#16\*5C/4FT output cable.  
 MPU130-108 is required to use AWG#16\*2C/4FT output cable.  
 The regulation and efficiency will be changed by modified output cable.

### Mechanical Specifications:

