MPU100 SERIES

100W Desk Top Switching Power Supplies For Medical Equipment.

Description:

The MPU100 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 ideally 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) ,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-C14 Input Inlet
- Single to Triple Output
- Output Voltage Available From 5VDC Thru 40VDC
- Optional Output Connector (See appendix)
- Input Surge Current, Over Voltage And Over Load protection
- Output Voltage Protection
- Ultra-low leakage current (under 0.1mA)
- Splash proof
- Power Factor Correction
- Class I Insulation
- ON/OFF SWITCH
- 2 Year Warranty

Safety Approvals :

c UL us EN 60601-1 CE CB

Electrical Characteristics:

Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Vin	Input Voltage	Operating Voltage	90		264	VAC
Fin	Input Frequency		47		63	Hz
PFC	Power Factor Correction	Io=Full load, Vin=230 VAC	0.95		1	
Wo	Output Power Range	Vin=90 to 264VAC	0		100	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			1.25	A
Iih	Input Current (High Line)	Io=Full load, Vin=230 VAC			0.5	A
Irl	Low Line Inrush Current	Io=Full load, 25°C ,Cool start, Vin= 115VAC		12	15	A
Irh	High Line Inrush Current	Io=Full load, 25°C ,Cool start, Vin= 230VAC		26	30	A
Eff	Efficiency	Io=Full Load, Vin=230VAC	75	83	88	%
REG-i	Line Regulation	Io=Full Load		0.5	1	%
REG-o	Load Regulation	Vin=230VAC		3	7	%
OVP	Over Voltage Protection		112		132	%
OCP	Over Current Protection		110		150	%
Ttr	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	0.3	1.5	2	S
* Vrn	Ripple & Noise (Peak to Peak)	Full Load, Vin=90VAC		0.5	1	%
Ilk	Safety Ground Leakage Current	Io= Full Load, Vin=240VAC/60Hz			0.1	mA
Tc	Temperature Coefficient	All output	-0.04		0.04	%/°C

*Note: The Ripple & Noise which is under 3.3VDC at 2% max

Environmental :

Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Toper	Operating Temperature		0		70	°C
Tstg	Storage Temperature		-40		85	°C
Hr	Relative Humidity		5		95	%
Pd	Derate linearly from 100% load at 50°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
Vpg	Dielectric Withstanding Voltage for Primary to Ground	Primary to ground	2800			VDC
Ri	Isolation Resistance	Test Voltage = 2100VDC	50			MΩ
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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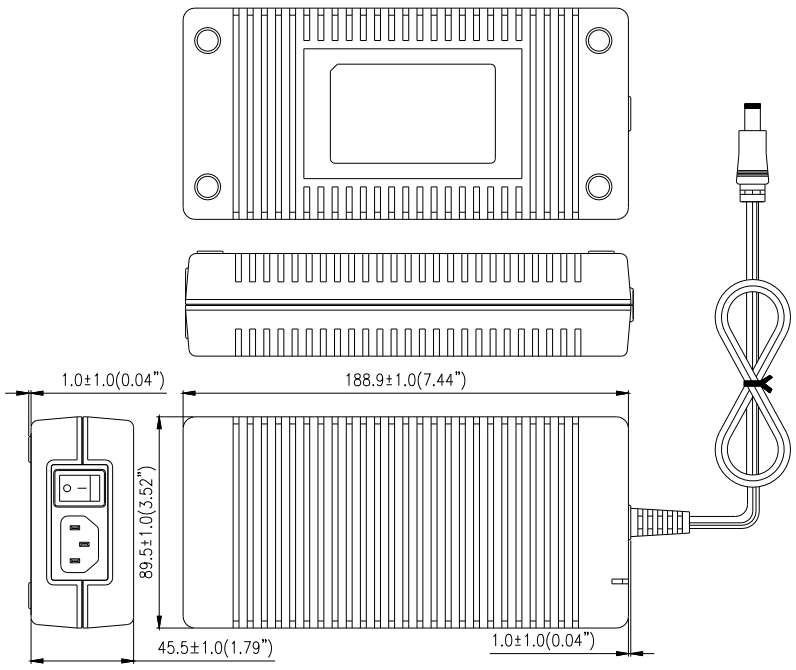
Output Voltage And Current Rating Chart (Single Output) :

Model Number	Output Voltage	Output Current	Total Regulation	Maximum Output Power
MPU100-102	5 ~ 6 VDC	14.00 ~ 11.66 A	5%	70W
MPU100-103	6 ~ 8 VDC	13.33 ~ 10.00 A	5%	80W
MPU100-104	8 ~ 11 VDC	11.25 ~ 8.20 A	4%	90W
MPU100-105	12 ~ 13 VDC	8.33 ~ 7.70 A	3%	100W
MPU100-106	13 ~ 16 VDC	7.70 ~ 6.30 A	3%	100W
MPU100-107	16 ~ 21 VDC	6.30 ~ 4.80 A	3%	100W
MPU100-108	21 ~ 27 VDC	4.80 ~ 3.70 A	2%	100W
MPU100-109	27 ~ 33 VDC	3.70 ~ 3.00 A	2%	100W
MPU100-110	33 ~ 40 VDC	3.00 ~ 2.50 A	2%	100W

Output Voltage And Current Rating Chart (Multi Output) :

Model Number	Output#1				Output#2				Output#3				Maximum Output Power
	Vonom	Iomin	Iomax	Regmax	Vonom	Iomin	Iomax	Regmax	Vonom	Iomin	Iomax	Regmax	
MPU100-200	+3.3V	1.0A	10A	7%	+12V	0.3A	3A	5%					69W
MPU100-201	+5V	1.0A	10A	5%	+12V	0.3A	3A	5%					80W
MPU100-202	+5V	1.0A	10A	5%	+15V	0.3A	3A	5%					80W
MPU100-203	+5V	1.0A	10A	5%	+24V	0.2A	2A	5%					80W
MPU100-204	+3.3V	1.0A	10A	7%	+5V	0.5A	5A	5%					55W
MPU100-209	+12V	0.7A	7A	5%					-12V	0A	1A	5%	80W
MPU100-210	+15V	0.6A	6A	5%					-15V	0A	1A	5%	80W
MPU100-212	+24V	0.3A	3A	5%					-24V	0A	1A	5%	80W
MPU100-215	+5V	1.0A	10A	5%					-24V	0A	1A	5%	74W
MPU100-300	+3.3V	1.0A	10A	7%	+12V	0.3A	3A	5%	-12V	0A	1A	5%	74W
MPU100-300-1	+3.3V	1.0A	10A	7%	+12V	0.3A	3A	5%	+12V	0A	1A	5%	74W
MPU100-301	+5V	1.0A	10A	5%	+12V	0.3A	3A	5%	-5V	0A	1A	5%	80W
MPU100-301-1	+5V	1.0A	10A	5%	+12V	0.3A	3A	5%	+5V	0A	1A	5%	80W
MPU100-302	+5V	1.0A	10A	5%	+12V	0.3A	3A	5%	-12V	0A	1A	5%	80W
MPU100-302-1	+5V	1.0A	10A	5%	+12V	0.3A	3A	5%	+12V	0A	1A	5%	80W
MPU100-303	+5V	1.0A	10A	5%	+15V	0.3A	3A	6%	-15V	0A	1A	5%	80W
MPU100-303-1	+5V	1.0A	10A	5%	+15V	0.3A	3A	6%	+15V	0A	1A	5%	80W
MPU100-304	+5V	1.0A	10A	5%	+24V	0.3A	3A	5%	-24V	0A	1A	5%	80W
MPU100-304-1	+5V	1.0A	10A	5%	+24V	0.3A	3A	5%	+24V	0A	1A	5%	80W
MPU100-305	+5V	1.0A	10A	5%	+24V	0.3A	3A	5%	-12V	0A	1A	5%	80W
MPU100-305-1	+5V	1.0A	10A	5%	+24V	0.3A	3A	5%	+12V	0A	1A	5%	80W
MPU100-306	+3.3V	1.0A	10A	7%	+12V	0.3A	3A	5%	-5V	0A	1A	5%	74W
MPU100-306-1	+3.3V	1.0A	10A	7%	+12V	0.3A	3A	5%	+5V	0A	1A	5%	74W
MPU100-308	+3.3V	1.0A	10A	7%	+5V	0.3A	3A	5%	-12V	0A	1A	5%	60W
MPU100-308-1	+3.3V	1.0A	10A	7%	+5V	0.3A	3A	5%	+12V	0A	1A	5%	60W

Mechanical Specifications (See Next Page For Output Connector Information):



Note:
1. Dimensions are shown in inches or mm.
2. Weight: 778-800gs approx.

DC Output Connections

Coaxial Plug (Single Output Models 108-110)

5.5mm outer diameter
2.1mm inner diameter, female
11mm length, center “+”

DIN (Single Output Models 104-107)

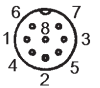
5 Pin DIN

1. COM
2. COM
3. Vout
4. COM
5. Vout

SHELL = GND

DIN (Single Output Models 102-103)

8 Pin DIN



1. COM
2. COM
3. Vout
4. COM
5. Vout
6. COM
7. Vout
8. Vout

Shell = GND

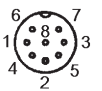
DIN (Multi-Output Models 209-215)

5 Pin DIN

1. COM
2. COM
3. Output #1
4. Output #3 (Triples, N.C. Otherwise)
5. Output #2

DIN (Multi-Output Models 200-204, 300-308)

8 Pin DIN



1. COM
2. Vout2
3. Vout1
4. Vout2
5. Vout1
6. COM
7. Vout1
8. COM

Shell = GND