

MPU51 SERIES

50W Desk Top Switching Power Supplies For Medical Equipment.

Description:

The MPU51 series of AC/DC switching mode power supplies provide 50 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 ANSI/AAMI ES 60601-1: 2005(UL/cUL 3rd Edition), EN 60601-1:2006 (TUV/T-mark 3rd Edition) and new CE requirements. All units are 100% burned in and tested.

Features:

- Wide Operating Voltage 90 to 264 VAC,47 to 63 Hz
- IEC-320-C14 Input Inlet
- Single to Triple Output
- Optional Output Connector (See appendix)
- Input Surge Current, Over Voltage And Over Load protection
- Splash proof
- Class I
- 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		264	VAC
fin	Input Frequency		47		63	Hz
Po	Output Power Range	Vin=90 to 264 VAC	0		50	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			1.35	A
Iih	Input Current (High Line)	Io=Full load, Vin=230VAC			0.8	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	See rating Chart			%
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	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	0.3	1.5	2	S
* Vp-p	Ripple & Noise (Peak to Peak)	Full load, Vin=90VAC		0.5	1	%
Ilk	Safety Ground Leakage Current	Io=Full load, Vin=240VAC		0.1	0.25	mA
TC	Temperature Coefficient	All output	-0.04		0.04	%/°C
Pno	No-Load Power Consumption	No load,Vin=230VAC	See rating Chart			W

* 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	50	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 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	5656			VDC
Vpg	Dielectric Withstanding Voltage for Primary to Ground	Primary to ground	2828			VDC
Ris	Isolation Resistance	Test Voltage = 500VDC	50			MΩ
CISPR	EMI requirements for CISPR-11	Vin=220VAC	B			CLASS
FCC	EMI requirements for FCC PART-18	Vin=120VAC	B			CLASS

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Output Voltage And Current Rating Chart (Single Output) :

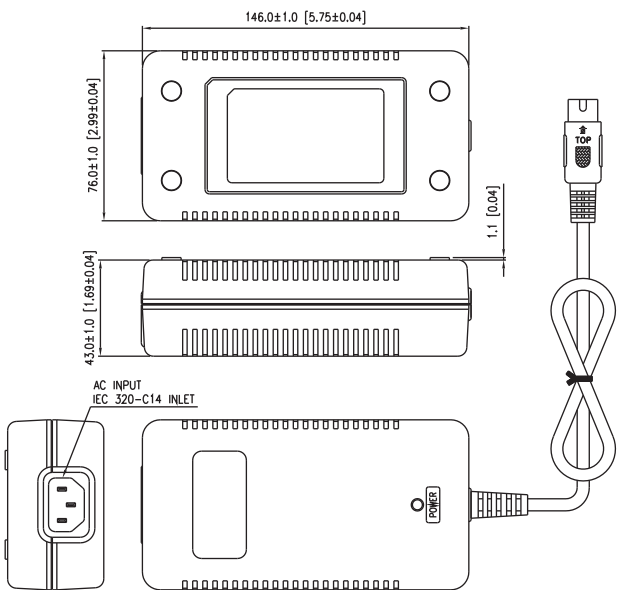
Model Number	Output Voltage	Output Current	Total Regulation	Eff. (min.)	Max. Output Power	Pno (max.)
MPU51-101	3 ~ 5 VDC	10.0 ~ 8.00 A	5%	65%	40W	2W
MPU51-102	5 ~ 6 VDC	8.00 ~ 6.66 A	5%	73%	40W	2W
MPU51-103	6 ~ 8 VDC	7.00 ~ 5.25 A	5%	77%	42W	3W
MPU51-104	8 ~ 11 VDC	5.63 ~ 4.00 A	4%	77%	45W	3W
MPU51-105	11 ~ 13 VDC	4.00 ~ 3.46 A	3%	80%	45W	3W
MPU51-106	13 ~ 16 VDC	3.46 ~ 2.81 A	3%	80%	45W	3W
MPU51-107	16 ~ 21 VDC	3.12 ~ 2.38 A	3%	81%	50W	3W
MPU51-108	21 ~ 27 VDC	2.30 ~ 1.85 A	2%	83%	50W	4W
MPU51-109	27 ~ 33 VDC	1.85 ~ 1.51 A	2%	82%	50W	4W
MPU51-110	33 ~ 40 VDC	1.51 ~ 1.25 A	2%	82%	50W	5W
MPU51-111	40 ~ 50 VDC	1.25 ~ 1.00 A	2%	82%	50W	6W

Output Voltage And Current Rating Chart (Multi Output) :

Model Number	Output #1				Output #2				Output #3				Eff. (Min.)	Max. Output Power	Pno. (max.)
	Vonom	Iomin	Iomax	Regmax	Vonom	Iomin	Iomax	Regmax	Vonom	Iomin	Iomax	Regmax			
MPU51-200	+3.3V	0.5A	5A	7%	+12V	0.2A	2A	5%					70%	40W	4W
MPU51-201	+5V	0.5A	5A	5%	+12V	0.2A	2A	5%					76%	42W	4W
MPU51-202	+5V	0.5A	5A	5%	+15V	0.15A	1.5A	6%					76%	42W	4W
MPU51-203	+5V	0.5A	5A	5%	+24V	0.1A	1A	5%					77%	42W	4W
MPU51-204	+3.3V	0.5A	5A	7%	+5V	0.2A	2A	5%					65%	26.5W	3W
MPU51-209	+12V	0.3A	3A	5%					-12V	0A	1A	5%	79%	42W	4W
MPU51-210	+15V	0.2A	2A	5%					-15V	0.1A	1A	5%	79%	42W	4W
MPU51-300	+3.3V	0.5A	5A	7%	+12V	0.4A	2A	5%	-12V	0.1A	0.8A	5%	70%	42W	5W
MPU51-301	+5V	0.5A	5A	5%	+12V	0.2A	2A	5%	-5V	0A	0.8A	5%	72%	42W	4W
MPU51-302	+5V	0.5A	5A	5%	+12V	0.2A	2A	5%	-12V	0.1A	0.8A	5%	75%	42W	4W
MPU51-303	+5V	0.5A	5A	5%	+15V	0.4A	2A	6%	-15V	0.1A	0.8A	5%	76%	42W	4W
MPU51-304	+5V	0.5A	5A	5%	+24V	0.2A	1A	5%	-24V	0A	0.5A	5%	75%	42W	6W
MPU51-305	+5V	0.5A	5A	5%	+24V	0.1A	1A	5%	-12V	0A	0.8A	5%	75%	42W	5W
MPU51-306	+3.3V	0.5A	5A	7%	+12V	0.4A	2A	5%	-5V	0.1A	0.8A	5%	70%	42W	5W

Mark "*" means " PSE approval "

Mechanical Specifications:



- Note:
1. Dimensions are shown in inches or mm.
 2. Weight: 510-560gs approx.
 3. Optional output connector:
See page Appendix.