

MPU50 SERIES

50W Desktop Type Switching Power Supplies For Medical

Description:

The MPU50 series of compact, Desktop, AC/DC switching power supplies are capable of delivering 50 watts of continuous output power. They are ideally suited for use in medical equipment, and operate from 90 to 264VAC input voltage without the need of voltage selection. All models are approved to meet the safety requirements of UL, c-UL and TUV



Features:

- Wide Input Voltage 90 to 264 VAC, 47 to 63 Hz
- IEC-320-C14 Input Inlet
- Output Voltage Available from 3VDC through 48VDC
- Optional Output Connectors (See Appendix)
- 4000VAC Isolation
- Low Safety Leakage Current
- Over Voltage Protection
- Over Current Protection
- 100% Burn-in
- Meets EMI requirements of medical equipment
- Both line and neutral fused for European Requirements
- Single Output
- Splash Proof
- One Year Warranty
- For EN2601 safety standard

ELECTRICAL CHARACTERISTICS:

Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
V _{in}	Input Voltage	-	90	-	260	VAC
F _{in}	Input Frequency	-	47	-	63	Hz
W _o	Output Power Range	V _{in} = 90 to 264 VAC	0	-	50	W
V _o	Output Voltage Range	-	See Rating Chart			V
I _o	Output Current Range	-	See Rating Chart			A
I _{il}	Input Current (Low Line)	I _o =Full Load, V _{in} =115VAC	-	-	1.35	A
I _{ih}	Input Current (High Line)	I _o =Full Load, V _{in} =230VAC	-	-	0.7	A
I _{rl}	Low Line Inrush Current	I _o =Full Load, 25°C, Cool Start, V _{in} =115VAC	-	12	15	A
I _{rh}	High Line Inrush Current	I _o =Full Load, 25°C, Cool Start, V _{in} =230VAC	-	26	30	A
Eff	Efficiency	I _o =Full Load, V _{in} =230VAC	75	83	88	%
REG-i	Line Regulation	I _o =Full Load	-	0.5	1	%
REG-o	Load Regulation	V _{in} =230VAC	-	3	5	%
OVP	Over Voltage Protection	-	112	-	132	%
OCP	Over Current Protection	-	110	-	150	%
T _{tr}	Transient Response	I _o =Full Load to Half Load, V _{in} =100VAC	-	-	4	mS
T _{hold}	Hold-Up Time	I _o =Full Load, V _{in} =100VAC	12	-	-	mS
T _s	Start Up Time	I _o =Full Load, V _{in} =100VAC	0.3	1	2	S
V _{rn}	-	Full Load, V _{in} =240VAC	-	0.5	1	%
I _{lk}	Safety Ground Leakage Current	I _o =Full Load, V _{in} =240VAC	-	0.05	0.1	mA
T _c	Temperature Coefficient	All Output	-0.04	-	0.04	%/°C

Environmental:

Sym	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
T _{oper}	Operating Temperature		0	-	70	°C
T _{stg}	Storage Temperature		- 40	-	85	°C
H _r	Relative Humidity		5	-	95	%
P _d	Derated From 100% at + 40°C Linearly to 50% at 70°C					

Safety Specifications

Sym	Parameter	Test Conditions	Min	Typ	Max	Unit
V _{ps}	Dielectric Withstanding Voltage for Primary to secondary	Primary to secondary	4242	-	-	VDC
V _{pg}	Dielectric Withstanding Voltage for Primary to ground	Primary to ground	2121			VDC
R _i	Isolation Resistance	Test Voltage = 500VDC	50	-	-	M ohm
C _{ispr}	EMI requirements for CISPR-22	V _{in} =220VAC	B	-	-	CLASS
F _{cc}	EMI requirements for CISPR-15	V _{in} =110VAC	B	-	-	CLASS

OUTPUT VOLTAGE AND CURRENT OUTPUT (Single Output):

Model Number	Output Voltage	Output Current	Total Regulation	Maximum Output Power
MPU50-100	2 - 3 VDC	8.00 Amax	7%	24W
MPU50-101	3 - 5 VDC	8.00 Amax	5%	40W
MPU50-102	5 - 6 VDC	8.00 - 6.66A	5%	40W
MPU50-103	6 - 9 VDC	7.50 - 5.00 A	4%	42W
MPU50-104	9 - 11 VDC	5.38 - 4.40 A	3%	45W
MPU50-105	11 - 13 VDC	4.54 - 3.38 A	3%	45W
MPU50-106	13 -16 VDC	3.84 - 3.12 A	3%	45W
MPU50-107	16 - 21 VDC	3.12 - 2.38 A	3%	50W
MPU50-108	21 - 27 VDC	2.38 - 1.85 A	2%	50W
MPU50-109	27 - 33 VDC	1.85 - 1.51 A	2%	50W
MPU50-110	33 - 40 VDC	1.51 - 1.25A	2%	50W
MPU50-111	40 - 50 VDC	1.25 - 1.00A	2%	50W

OUTPUT VOLTAGE AND CURRENT OUTPUT (Multi Output):

Model Number	Output #1				Output #2				Output #3				Maximum Output Power
	V _{on} nom	I _o min	I _o max	Reg	V _o nom	I _o min	I _o max	Reg	V _o nom	I _o min	I _o max	Reg	
MPU50-200	+3.3V	0.5A	5A	5%	+12V	0.2A	2A	5%	-	-	-	-	40W
MPU50-201	+5V	0.5A	5A	5%	+12V	0.2A	2A	5%	-	-	-	-	42W
MPU50-202	+5V	0.5A	5A	5%	+15V	0.2A	1.5A	6%	-	-	-	-	42W
MPU50-203	+5V	0.5A	5A	5%	+24V	0.1A	1A	5%	-	-	-	-	42W
MPU50-204	+3.3V	1.0A	5A	5%	+5V	0.4A	2A	5%	-	-	-	-	26.5W
MPU50-209	+12V	0.5A	3A	5%	-12V	0.2A	1A	5%	-	-	-	-	42W
MPU50-210	+15V	0.5A	2A	5%	-15V	0.2A	1A	5%	-	-	-	-	42W
MPU50-216	+5.1V	0A	1A	5%	+7.2V	0.2A	2.6A	5%	-	-	-	-	23.82W
MPU50-300	+3.3V	0.5A	5A	5%	+12V	0.2A	2A	5%	-12V	0A	0.8A	5%	42W
MPU50-301	+5V	0.5A	5A	5%	+12V	0.2A	2A	5%	-5V	0A	0.8A	5%	42W
MPU50-302	+5V	0.5A	5A	5%	+12V	0.2A	2A	5%	-12V	0A	0.8A	5%	42W
MPU50-303	+5V	0.5A	5A	5%	+15V	0.2A	2A	5%	-15V	0A	0.8A	5%	42W
MPU50-304	+5V	0.5A	5A	5%	+24V	0.1A	1A	5%	-24V	0A	0.5A	5%	42W
MPU50-305	+5V	0.5A	5A	5%	+24V	0.1A	1A	5%	-12V	0A	0.8A	5%	42W
MPU50-306	+3.3V	0.5A	5A	5%	+12V	0.2A	2A	5%	-5V	0A	0.8A	5%	42W

Mechanical Specifications :

Note:

1. Dimensions are shown in mm.
2. Weight: 520gs approx.
3. Optional output connectors:
See page Appendix.

