

MPU15A SERIES

15W Desk Top Switching Power Supplies For Medical Equipment.

Description:

The MPU15A series of AC/DC switching mode power supplies provide 15 Watts of continuous output power and is well-suited for a variety of applications. All supplies are UL 94V-1 min compliant. All models comply with UL/c-UL(UL 60601-1:2nd Edition), TUV/T-mark(EN 60601-1:2nd 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 Output
- Energy Star 2.0, Efficiency level V
- Over Voltage and Over Load protection.
- Over temperature Detection
- 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 264VAC	0		15	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	0.33	A
Iih	Input Current (High Line)	Io=Full load, Vin=230VAC		0.17	0.18	A
Irl	Low Line Inrush Current	Io=Full load, 25°C, Cool start, Vin=115VAC		18	23	A
Irh	High Line Inrush Current	Io=Full load, 25°C, Cool start, Vin=230VAC		38	45	A
Eff	Efficiency	Io=Full Load, Vin=230VAC	73		85	%
REG-i	Line Regulation	Io=Full Load		0.5	1	%
REG-o	Load Regulation	Vin=230VAC	1	3	5	%
OVP	Over Voltage ^① Protection		112		132	%
OCP	Over Current ^① 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	16		mS
Ts	Start Up Time	Io=Full Load, Vin=100VAC		0.5	1	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			0.3	mA
TC	Temperature Coefficient	All output	-0.04		0.04	%/°C
Pno	No-Load Power Consumption	No load, Vin=230 VAC	0	0.25	0.3	W
Tjsd	Thermal Shutdown ^① by Junction Temperature Controller	The parameter is not subject to production test-verified by design/characterization of integrated controller.	-20		125	°C

^① When the power system interruption is isolated, the product would re-start after recovering by hand.

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		75	%
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					

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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 Ground	Primary to ground	2828			VDC
Ris	Isolation Resistance	Test Voltage=500VDC	50			M Ω
EN55022	EMI requirements for EN55022	Vin=230VAC, 50HZ	B			CLASS
FCC	EMI requirements for FCC PART-18	Vin=120VAC, 60HZ	B			CLASS

Output Voltage And Current Rating Chart (Single Output) :

Model Number	Output Voltage	Output Current	Total Regulation ^①	Maximum Output Power
* MPU15A-102	5 ~ 6 VDC	2.60~2.16 A	5%	13W
* MPU15A-103	6 ~ 8 VDC	2.16~1.62 A	5%	13W
* MPU15A-104	8 ~ 11 VDC	1.87~1.36 A	5%	15W
* MPU15A-105	11 ~ 13 VDC	1.36~1.15 A	5%	15W
MPU15A-106	13 ~ 16 VDC	1.15~0.93 A	5%	15W
MPU15A-107	16 ~ 21 VDC	0.93~0.71 A	5%	15W
MPU15A-108	21 ~ 27 VDC	0.71~0.55 A	3%	15W
MPU15A-109	27 ~ 33 VDC	0.55~0.45 A	3%	15W
MPU15A-110	33 ~ 36 VDC	0.45~0.41 A	3%	15W

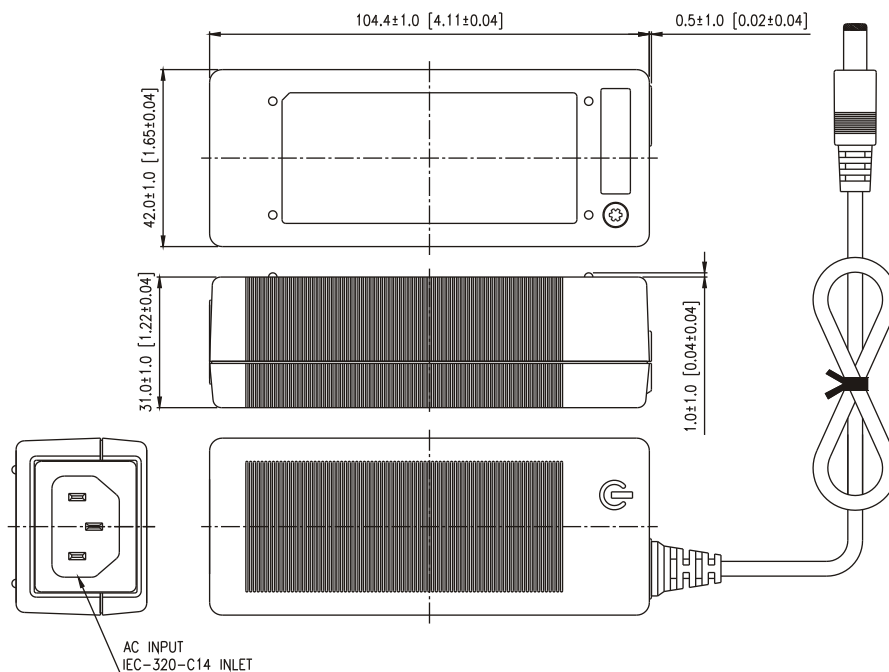
Mark " * " means approved by PSE.

① MPU15A-102,103 are required to use AWG#16 / 4FT output cable.

MPU15A-105~110 are required to use AWG#18 / 4FT output cable.

The regulation and efficiency will be changed by modified output cable.

Mechanical Specifications :



Note:

1. Dimensions are shown in mm.
2. Weight: 170gs approx.
3. Optional output connector: See page Appendix.