

### 30W Desk Top Switching Power Supplies For Medical Equipment.

#### Description:

The MPU30 series of AC/DC switching mode power supplies provide 30 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 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
- Energy Star 2.0, Efficiency level V
- 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		30	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			0.9	A
Iih	Input Current (High Line)	Io=Full load, Vin=230 VAC			0.34	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		28	38	A
Eff	Efficiency	Io=Full Load, Vin=230VAC	70	83	85	%
REG-i	Line Regulation	Io=Full Load		0.5	1	%
REG-o	Load Regulation	Vin=230VAC		3	10	%
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	12			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	mA
TC	Temperature Coefficient	All output	-0.04		0.04	%/°C
Pno	No-Load Power Consumption	No load, vin=240VAC	0.3		0.5	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		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					

#### 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=110VAC	B			CLASS

### 30W Desk Top Switching Power Supplies For Medical Equipment.

#### Output Voltage And Current Rating Chart (Single Output) :

Model Number	Output Voltage	Output Current	Total Regulation <sup>Ⓞ</sup>	Maximum Output Power
MPU30-101	3 ~ 5 VDC	6.66 ~ 4.00 A	7%	20W
MPU30-102	5 ~ 6 VDC	5.00 ~ 4.16 A	5%	25W
MPU30-103	6 ~ 8 VDC	4.16 ~ 3.12 A	5%	25W
MPU30-104	8 ~ 11 VDC	3.75 ~ 2.72 A	4%	30W
MPU30-105	11 ~ 13 VDC	2.72 ~ 2.30 A	3%	30W
MPU30-106	13 ~ 16 VDC	2.30 ~ 1.87 A	3%	30W
MPU30-107	16 ~ 21 VDC	1.87 ~ 1.42 A	3%	30W
MPU30-108	21 ~ 27 VDC	1.42 ~ 1.11 A	2%	30W
MPU30-109	27 ~ 33 VDC	1.11 ~ 0.90 A	2%	30W
MPU30-110	33 ~ 40 VDC	0.90 ~ 0.75 A	2%	30W

#### 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	
MPU30-200	+3.3V	0.30A	3.0A	7%	+12V	0.13A	1.3A	5%					25W
MPU30-201	+5V	0.30A	3.0A	5%	+12V	0.13A	1.3A	5%					30W
MPU30-202	+5V	0.30A	3.0A	5%	+15V	0.10A	1.0A	5%					30W
MPU30-203	+5V	0.30A	3.0A	5%	+24V	0.07A	0.7A	5%					30W
MPU30-204	+3.3V	0.30A	3.0A	7%	+5V	0.16A	1.6A	5%					17.9W
MPU30-209	+12V	0.20A	3.0A	5%					-12V	0.05A	0.5A	10%	30W
MPU30-210	+15V	0.15A	1.5A	5%					-15V	0.05A	0.5A	10%	30W
MPU30-215	+5V	0.30A	3.0A	5%					-24V	0.10A	1.0A	10%	30W
MPU30-301	+5V	0.25A	2.5A	5%	+12V	0.11A	1.1A	5%	-5V	0.05A	0.5A	10%	25W
MPU30-302	+5V	0.25A	2.5A	5%	+12V	0.10A	1.0A	5%	-12V	0.05A	0.5A	10%	30W
MPU30-303	+5V	0.25A	2.5A	5%	+15V	0.10A	1.0A	5%	-15V	0.05A	0.5A	10%	30W
MPU30-304	+5V	0.30A	3.0A	5%	+24V	0.10A	1.0A	5%	-24V	0.05A	0.5A	10%	30W
MPU30-305	+5V	0.30A	3.0A	5%	+24V	0.10A	1.0A	5%	-12V	0.05A	0.5A	10%	30W
MPU30-306	+3.3V	0.30A	3.0A	7%	+12V	0.11A	1.1A	5%	-5V	0.05A	0.5A	10%	25W

MPU30-103~110 had been approved by CEC level V.

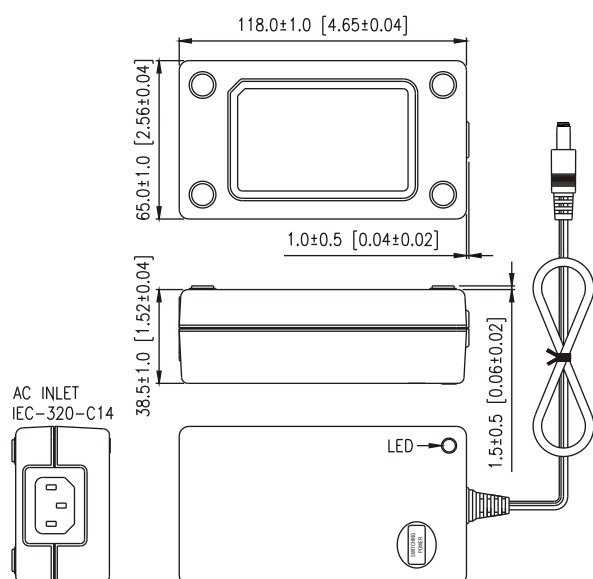
Ⓞ MPU30-103~104 are required to use AWG#16 / 4FT output cable.

MPU30-105~108 are required to use AWG#18 / 6FT output cable.

MPU30-109~110 are required to use AWG#20 / 6FT output cable.

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

#### Mechanical Specifications:



#### Note:

1. Dimensions are shown in inches or mm.
2. Weight: 400-460gs approx.
3. Optional output connector:  
See page Appendix.

#### Stontronics Ltd

Chancerygate Business Centre, Cradock Road, Reading, Berkshire, RG2 0AH

Tel: +44 (0) 118 931 1199 - Fax: +44 (0) 118 931 1145 - Email: info@stontronics.co.uk - www.stontronics.co.uk

Stontronics Ltd is not responsible for typographical errors. Product specifications are subject to change without notice.