

# TPMPU16B SERIES

15W Desk Top Type  
Medical Power Supplies

## Features:

- Wide Operating Voltage 90 to 264 VAC, 47 to 63 Hz
- IEC-320-C8 Input Inlet
- Single Output
- Class II
- Over Voltage and Over Load protection
- ANSI/AAMI ES 60601-1: 2005(UL/cUL 3rd Edition)  
EN 60601-1:2006 (TUV/T-mark 3rd Edition)
- Input to Output : 2MOPP
- 3 year warranty



## Electrical Characteristics:

Vin	Safety Approvals Input Voltage Range		100~240VAC
	Operate Voltage Range		90~264VAC
fin	Input Frequency		47~63Hz
Po	Output Power Range		See rating chart
Vo	Output Voltage Range		See rating chart
Io	Output Current Range		See rating chart
Iil	Input Current (Low Line)	Io=Full load, Vin=100VAC	0.29~0.32A
	Input Current (High Line)	Io=Full load, Vin=240VAC	0.17~0.19A
Ir	Low Line Inrush Current	Io=Full load, 25°C, Cool start, Vin=115VAC	23A (max.)
	High Line Inrush Current	Io=Full load, 25°C, Cool start, Vin=230VAC	45A (max.)
Eff	Efficiency	Io=Full Load, Vin=230VAC	73.3~85%
REG-i	Line Regulation	Io=Full Load	0.5~1%
REG-o	Load Regulation	Vin=230VAC	1~5%
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	4mS (max.)
Th	Hold-Up Time	Io=Full Load, Vin=110VAC	10mS (min.)
Ts	Start Up Time	Io=Full Load, Vin=100VAC	0.5~1S
Vp-p	Ripple & Noise(Peak to Peak)	Full Load, Vin=90VAC	0.5~1%
Ilk	Leakage Current	Vin=240VAC/60Hz	0.1mA (max.)
TC	Temperature Coefficient	All output	±0.04%/°C
OA	Operating Altitude		Up to 3000m
Pno	No-Load Power Consumption	No load, Vin=230VAC	See rating chart
Vps	Dielectric Withstanding Voltage	Primary to secondary	6128VDC (min.)
Ris	Isolation Resistance	Test Voltage=500VDC	50MΩ (min.)

## Application:

- Blood Pressure system
- Portable medical devices
- ECG machine

## Safety Approvals:



## Environmental

To	Operating Temperature	See derating curve
Ts	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 (min.)
Pd	Derate linearly from 100% load at 50°C to 50% load at 70°C	



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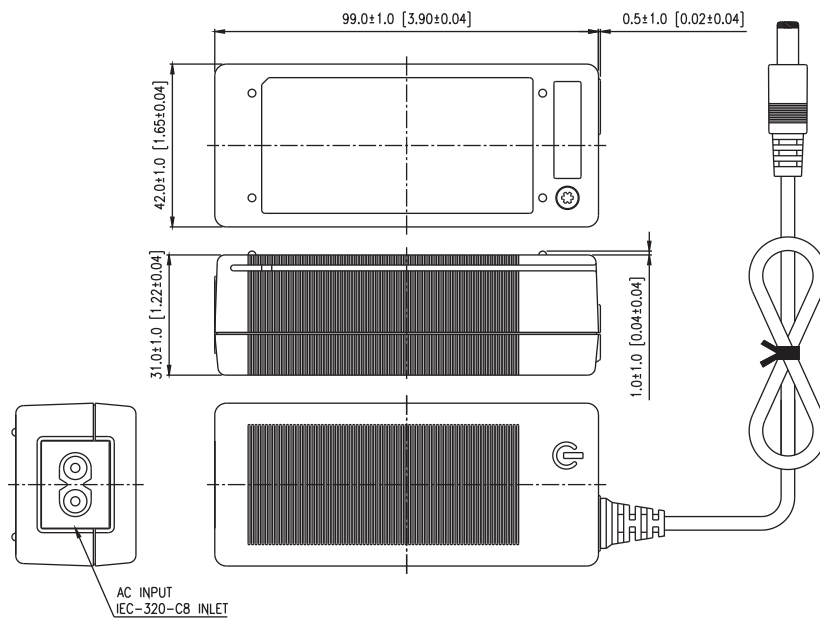
15W Desk Top Type  
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## Output Voltage And Current Rating Chart ( Single Output ) :

Model Number	Output Voltage	Output Current	Total Regulation	Max. Output Power	Pno (max.)
TPMPU16B-102	5 ~ 6 VDC	2.60 ~ 2.16 A	5%	13W	0.3W
TPMPU16B-103	6 ~ 8 VDC	2.16 ~ 1.62 A	5%	13W	0.3W
TPMPU16B-104	8 ~ 11 VDC	1.87 ~ 1.36 A	5%	15W	0.3W
TPMPU16B-105	11 ~ 13 VDC	1.36 ~ 1.15 A	5%	15W	0.3W
TPMPU16B-106	13 ~ 16 VDC	1.15 ~ 0.93 A	5%	15W	0.3W
TPMPU16B-107	16 ~ 21 VDC	0.93 ~ 0.71 A	5%	15W	0.3W
TPMPU16B-108	21 ~ 27 VDC	0.71 ~ 0.55 A	3%	15W	0.3W
TPMPU16B-109	27 ~ 33 VDC	0.55 ~ 0.45 A	3%	15W	0.3W
TPMPU16B-110	33 ~ 36 VDC	0.45 ~ 0.41 A	3%	15W	0.3W

TPMPU16B-102~103 are required to use AWG#16 / 4FT output cable.  
 TPMPU16B-105~110 are required to use AWG#18 / 4FT output cable.  
 The regulation and efficiency will be changed by modified output cable.

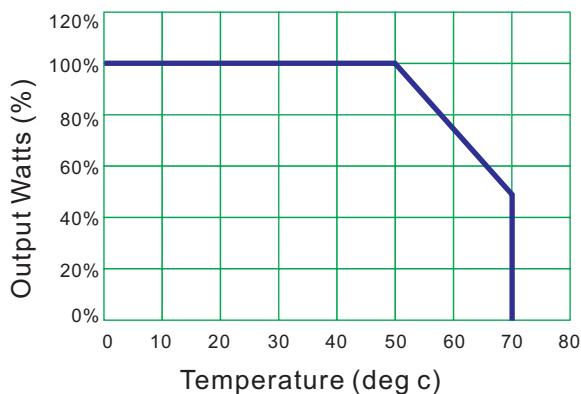
## Mechanical Specifications:



### Note:

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

## Derating Curve :



1. Operating Temperature: 0 to 70°C
2. Derate linearly from 100% load at 50°C to 50% load at 70°C

