

SMDA250A SERIES

250W Desktop Power Supply for Medical Equipment

- Wide Operating Voltage, 90 to 260 VAC, 47 to 63 Hz
- IEC-320-C14 Input Inlet
- Single Output
- Over Voltage Protection
- Input to Output : 2MOPP
- Active Power Factor Correction
- High ESD immunity
- Suitable professional healthcare facility
- Low earth leakage current < 0.25mA

5 Year Warranty

Approvals:

Single Output

PART NO.	Setting Voltage Range (Factory setting, can't be adjusted)	Output Current (Based on the output volt.)	Maximum Output Power	Ripple & Noise	Total Regulation	Typ. Efficiency	Typ. No Load Consumption	Hold Up Time	Protection Mode
	(VDC)	(A)	(W)	(mVp-p)	(%)	(%)	(W)	(ms)	
SMDA250A-S05	12.0	19.16	230	120	±5	90	0.21	20	Hiccup
SMDA250A-S07	19.0	13.15	250	190	±5	91	0.21	20	Hiccup
SMDA250A-S08	24.0	10.41	250	240	±3	91	0.21	20	Hiccup
SMDA250A-S09	30.0	8.33	250	300	±3	91	0.21	20	Hiccup
SMDA250A-S10	36.0	6.94	250	360	±3	92	0.21	20	Hiccup
SMDA250A-S11	48.0	5.20	250	480	±3	92	0.21	20	Hiccup

Electrical Characteristics

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Safety Approvals Input Voltage Range	Safety Approval & Specification in Label	100		240	VAC
Operate Voltage Range		90		264	VAC
Input Frequency	Sine wave	47		63	Hz
Power Factor Correction		0.95		1	
Output Power Range	See Rating Chart			250	W
Low Line Input Current	Full load, Vin=100VAC			2.8	A
High Line Input Current	Full load, Vin=240VAC			1.4	A
Low Line Input Inrush Current	Full load, 25°C, Cool start, Vin=100VAC			60	A
High Line Input Inrush Current	Full load, 25°C, Cool start, Vin=240VAC			150	A
Safety Ground Leakage Current	Vin=240VAC, F=60Hz			0.25	mA
Efficiency	Full Load, Vin=230VAC	See Rating Chart			%
Line Regulation	Full Load, Vin=100~120VAC or 200~240VAC			1	%
Over Voltage Protection	Latch off, recycle input to reset	120		180	%
Over Load Protection	Recovers automatically after fault condition is removed	110		150	%
Time of Transient Response	Io=Full Load to Half Load, Vin=110VAC			4	ms
Hold-Up Time	Full Load, Vin=100VAC			16	ms
Start Up Time	Full Load, Vin=100~240VAC			2	s
Insulation Resistance		50			MΩ
Temperature Coefficient	All Condition			±0.04	%/°C
Dielectric Withstanding Voltage(P-S)	Primary to Secondary, limit current<10 mA			4000	VAC
Dielectric Withstanding Voltage(P-G)	Primary to PE, limit current<10 mA			1500	VAC
EMC Emission	Compliance to EN55022(CISPR22)	B			Class

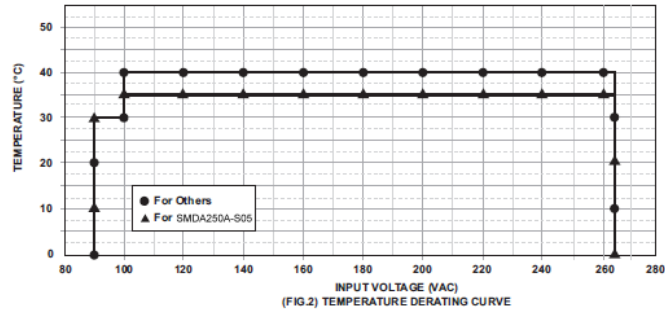
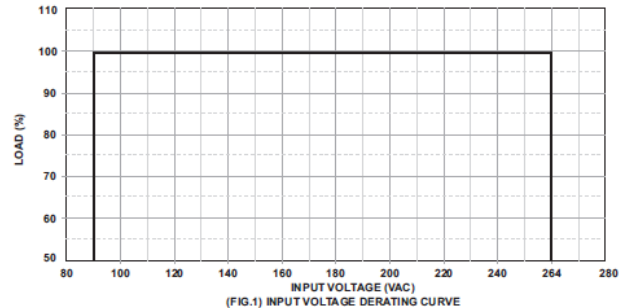
Environmental

Characteristic	Condition	Min.	Typ.	Max.	Unit
Operating Temperature	Detail to see Fig.2 (Derate linearly from 100% load at 40°C to 50% load at 70°C)	-10		70	°C
Storage Temperature	10 ~ 95% RH	-40		85	°C
Operating Humidity	non-condensing	0		95%	RH
Storage Humidity		0		95%	RH
Electro Static Discharge	Air Discharge, IEC61000-4-2			15	kV
Electro Static Discharge	Contact Discharge, IEC61000-4-2			8	kV
Mean Time Between Failure	Operating Temperature at 25°C, Calculated per MIL-HDBK-217F	200k			h
Operating Altitude (Elevation)	All condition			3000	m
Vibration	10 ~ 500Hz, 10min./1cycle, 60min. each along X, Y, Z axes			5	G
Surge Voltage	Line-Neutral			1	kV
Surge Voltage	Line-PE & Neutral-PE			2	kV

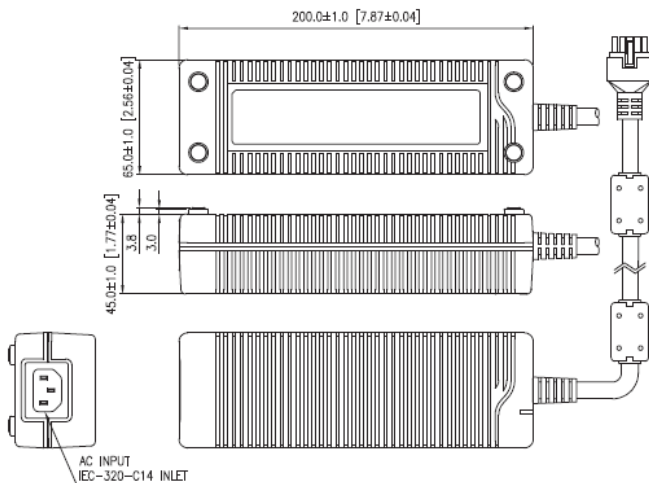
Mechanical Diagram and Technical Charts

SPECIFICATION NOTE :

- Output can provide up to peak load when the power supply starts up. Continuous staying in more than rated load is not allowed.
- At factory, in 60% rated load condition, each output is checked to be within voltage accuracy.
- Line regulation is defined by changing $\pm 10\%$ of input voltage from nominal line at rated load.
- Load regulation is defined by changing $\pm 40\%$ of measured output load from 60% rated load.
- Ripple & noise is measured by using 20MHz bandwidth limited oscilloscope and terminated each output with a 47uF capacitor at rated load and nominal line.
- Hold up time is measured from the end of the last charging pulse to the time which the main output drops down to low limit of main output at rated load and nominal line.
- Efficiency is measured at rated load, and nominal line.



MECHANICAL DIMENSIONS: (UNIT: mm)



OUTPUT CABLE RECOMMEND :

- Selected output connectors and wire, please refer to Appendix.
- This series is required to use AWG#16/8C/2FT output cable.
- The regulation and efficiency will be changed by modified output cable.

PACKING :

- Net weight: 765g approx.
- Optional output connectors available contact sales for details.