

SMDA180B SERIES
180W Desktop Power Supply for Medical Equipment


- Wide Input Voltage 90 to 260 VAC, 47 to 63Hz
- IEC-320-C8 Input Inlet
- Over Voltage and Over Load Protection
- Meet Medical Safety 3rd Edition (EN60601-1 3rd Edition)
- Input to Output: 2MOPP
- Class II System
- Meet FCC Part-18 Class B and CISPR-11 EN55011 Class B Emission
- UL94V-1 Flammability Rating
- Free Air Convection Cooling

5 Year Warranty
Approvals: PRELIMINARY
Single Output

Product Number	Output Voltage	Max. Output Current	Regulation	Max. Output Power	Safety Approvals
SMDA180B-S05	12 VDC	14.0 A	±5%	168W	
SMDA180B-S07	19 VDC	9.47 A	±3%	180W	
SMDA180B-S08	24 VDC	7.50 A	±3%	180W	
SMDA180B-S09	30 VDC	6.00 A	± 3%	180W	
SMDA180B-S10	33 VDC	5.45 A	± 3%	180W	
SMDA180B-S11	48 VDC	3.75 A	± 3%	180W	

Electrical Characteristics

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Input Voltage	Safety Approvals Input Voltage Range	100		240	
Input Voltage	Operating Voltage Range	90		260	VAC
Input Frequency		47		63	Hz
Power Factor Correction		0.95		1.00	
Output Power Range	V _{in} = 90 to 260 VA C	0		180	W
Input Current (Low Line)	I _o =Full load, V _{in} =100 VAC			2.2	A
Input Current (High Line)	I _o =Full load, V _{in} = 240 VAC			0.9	A
Low Line Inrush Current	I _o =Full load, 25°C, Cool start, V _{in} =100VAC			60	A
High Line Inrush Current	I _o =Full load, 25°C, Cool start, V _{in} =240VAC			120	A
Efficiency	I _o =Full Load, V _{in} =230VAC		89	92	%
Line Regulation	I _o =Full Load, V _{in} =100~240VAC			1	%
Over Load Protection	Auto recovery	110		150	%
Transient Response	I _o =Full Load, V _{in} =110VAC			4	mS
Hold-Up Time	I _o =Full Load, V _{in} =100VAC	20			mS
Start Up Time	I _o =Full Load, V _{in} =100~240VAC			2	S
Ripple & Noise (Peak to Peak)	Full Load, V _{in} =90VAC			100	mVp-p
Temperature Coefficient	All output	-0.04		0.04	%/°C
Safety Ground Leakage Current	V _{in} =240VAC/60Hz			0.1	mA
No-Load Power Consumption	No load, V _{in} =230VAC			0.5	W

Conditions

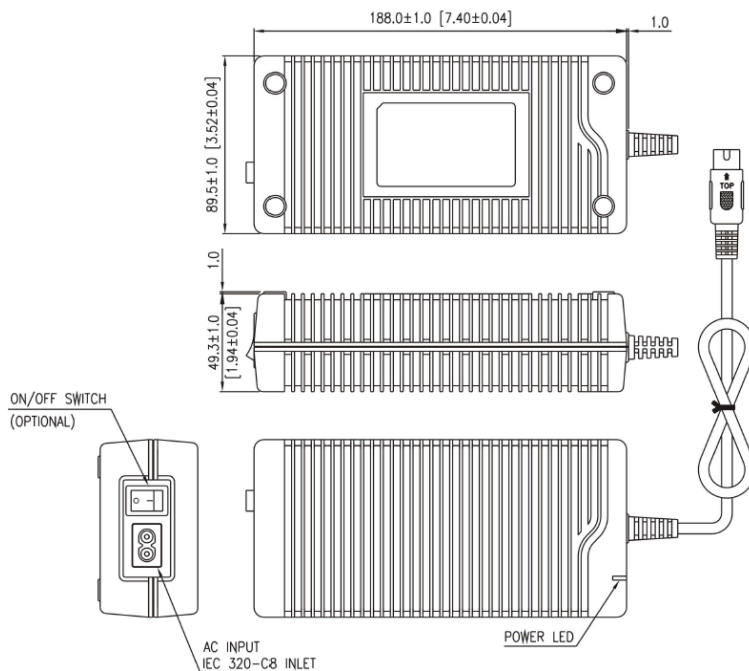
Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Operating Temperature		-10		70	°C
Storage Temperature		-40		85	°C
Operating Humidity	Non-condensing	0		95	%
Storage Humidity	Non-condensing	0		95	%
Operating Altitude				3000	m
Operating Temperature at 25°C, Calculated per MIL-HDBK-217F		100			K Hrs

De-rate linearly from 100% load at 50°C to 50% load at 70°C

Approvals and Compliance

Parameter	Test Conditions	Min.	Unit
Dielectric Withstanding Voltage for Primary to secondary	Primary to secondary	5656	VDC
Dielectric Withstanding Voltage for Primary to PE	Primary to PE	2121	VDC
Isolation Resistance	Test Voltage = 500VDC	50	MΩ
EMI requirements for CISPR-11	Vin=220VAC	B	CLASS
EMI requirements for FCC PART-18	Vin=110VAC	B	CLASS
Surge Voltage	All Condition	2	KV
Electro Static Discharge	Air Discharge, IEC61000-4-2	8	KV
Electro Static Discharge	Contact Discharge, IEC61000-4-2	6	KV
Safety UL/c-UL, TUV/T-mark, CE	Meet UL 60601-1, EN 60601-1, IEC 60601-1 3rd Edition		
Environmental	RoHS		
Vibration	20~500Hz, 10min./1cycle, 60min. each along X,Y,Z axes	5	G

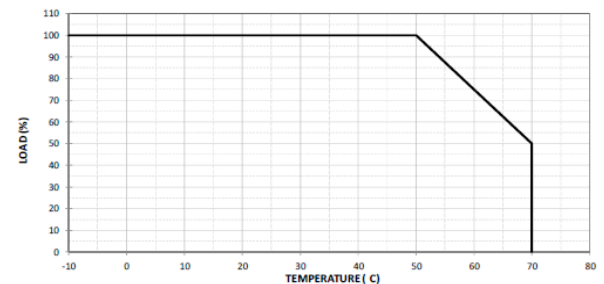
Mechanical and PIN out



Note:

1. Dimensions are shown in mm.
2. Weight: 894~952g approx.
3. This series is required to use AWG#16/5C/4FT output cable.
4. The regulation and efficiency will be changed by modified output cable.

Derating Curve



Operating Temperature: -10 to 70°C
 Derate linearly from 100% load at 50°C to 50% load at 70°C.