

SMDA16B SERIES
15W Desktop Power Supply for Medical Equipment


- Wide Operating Voltage, 80 to 275 VAC, 47 to 63 Hz
- IEC-320-C8 Input Inlet
- Single Output
- Crowbar Mode Over Voltage Protection
- Input to Output : 2MOPP
- High ESD immunity
- Suitable professional healthcare facility
- Class II system

5 Year Warranty

Approvals:

Single Output

| Model Number | Output Voltage | Max. Output Current | Total Regulation | Maximum Output Power |
|--------------|----------------|---------------------|------------------|----------------------|
| SMDA16B-S02 | 5 ~ 5.99 VDC | 2.60 ~ 2.16 A | ±5% | 13W |
| SMDA16B-S03 | 6 ~ 8 VDC | 2.16 ~ 1.62 A | ±5% | 13W |
| SMDA16B-S04 | 8 ~ 11 VDC | 1.87 ~ 1.36 A | ±5% | 15W |
| SMDA16B-S05 | 11 ~ 13 VDC | 1.36 ~ 1.15 A | ±5% | 15W |
| SMDA16B-S06 | 13 ~ 16 VDC | 1.15 ~ 0.93 A | ±5% | 15W |
| SMDA16B-S07 | 16 ~ 21 VDC | 0.93 ~ 0.71 A | ±5% | 15W |
| SMDA16B-S08 | 21 ~ 27 VDC | 0.71 ~ 0.55 A | ±3% | 15W |
| SMDA16B-S09 | 27 ~ 33 VDC | 0.55 ~ 0.45 A | ±5% | 15W |
| SMDA16B-S10 | 33 ~ 36 VDC | 0.45 ~ 0.41 A | ±5% | 15W |

SMDA16B- S02, S03 are required to use AWG#16 / 4FT output cable.
 SMDA16B- S05~S10 are required to use AWG#18 / 4FT output cable.
 The regulation and efficiency are not guaranteed if changes the output cable

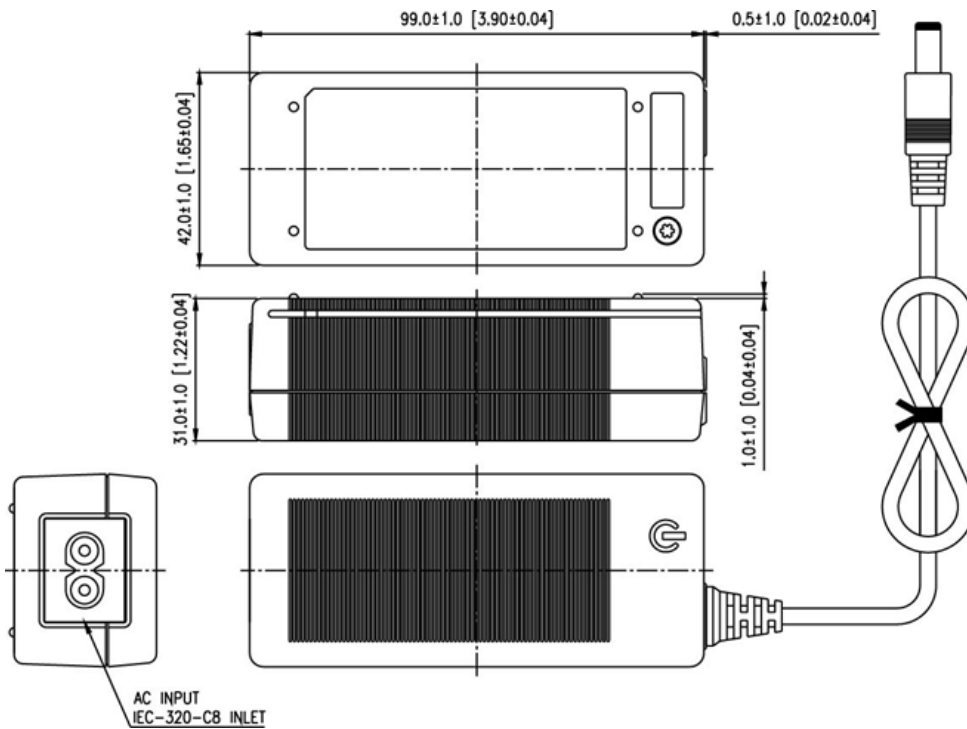
Electrical Characteristics

| Parameter | Test Conditions | Min. | Typ. | Max. | Unit |
|--------------------------------------|--|------|------|-------|-------|
| Safety Approvals Input Voltage Range | Safety Approval & Specification in Label | 100 | | 240 | VAC |
| Operate Voltage Range | Derate linearly from 100% load at 90VAC to 80% load at 80VAC | 80 | | 275 | VAC |
| Input Frequency | Sine wave | 47 | | 63 | Hz |
| Output Power Range | See Rating Chart | | | 15 | W |
| Low Line Input Current | Full load, Vin=100VAC | 0.29 | 0.32 | | A |
| High Line Input Current | Full load, Vin=240VAC | 0.17 | 0.19 | | A |
| Low Line Input Inrush Current | Full load, 25°C, Cool start, Vin=100VAC | | | 23 | A |
| High Line Input Inrush Current | Full load, 25°C, Cool start, Vin=240VAC | | | 55 | A |
| Safety Ground Leakage Current | Vin=264VAC, Fi=63Hz | | | 0.15 | mA |
| Efficiency | Full Load, Vin=230VAC | 75 | | 85 | % |
| Line Regulation | Full Load, Vin=100~120VAC or 200~240VAC | 0.5 | | 1 | % |
| Over Voltage Protection | | 112 | | 132 | % |
| 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 | | | 10 | ms |
| Start Up Time | Full Load, Vin=100~240VAC | | | 2 | s |
| Insulation Resistance | | 50 | | | MΩ |
| Ripple & Noise (Peak to Peak) | | | | 1 | % |
| Temperature Coefficient | All output | | | ±0.04 | %/°C |
| Dielectric Withstanding Voltage(P-S) | Primary to Secondary, limit current<10mA | | | 4000 | VAC |
| Dielectric Withstanding Voltage(P-G) | Primary to PE, limit current<10mA | | | 1500 | VAC |
| EMC Emission | Compliance to EN55011(CISPR11), EN60601-1-2 | B | | | Class |

Environmental

| Parameter | Test Conditions | Min. | Typ. | Max. | Unit |
|--------------------------------|---|------|------|------|------|
| Operating Temperature | Derate linearly from 100% load at 50 to 50% load at 70 | -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 | Operation Temperature at 25 J, 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 |

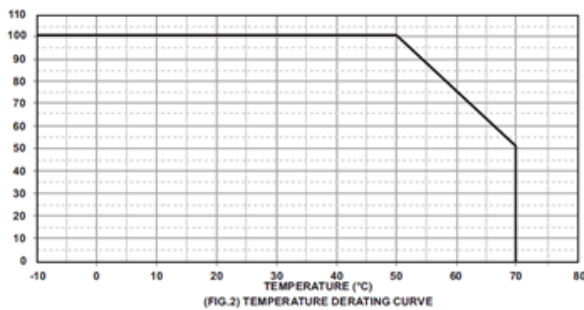
Mechanical Diagram



Note:

1. Dimensions are shown in mm & inch
1. Weight: 170gs approx. (Exclude the input cord)
2. Optional output connector.

Derating Chart



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