

**SMDA100 SERIES**

**100W Desk Top for Medical Equipment**



- ✓ Wide Input Voltage 90 to 264 VAC, 47 to 63 Hz
- ✓ IEC-320-C14 input inlet and optional AC cords (EU, UK, US, Japan types)
- ✓ Single to Triple Output
- ✓ Input Surge Current, Over Voltage And Over Load protection
- ✓ Output Voltage Protection
- ✓ Ultra-low leakage current (under 0.1 mA)
- ✓ Power Factor Correction
- ✓ Class I Insulation
- ✓ ON/OFF SWITCH

**3 Year Warranty**

Approvals:    

**Single Output**

| Model Number | Output Voltage | Max. Output Current | Total Regulation | Maximum Output Power |
|--------------|----------------|---------------------|------------------|----------------------|
| SMDA100-S02  | 5 ~ 6 VDC      | 14.00 ~ 11.66 A     | 5%               | 70W                  |
| SMDA100-S03  | 6 ~ 8 VDC      | 13.33 ~ 10.00 A     | 5%               | 80W                  |
| SMDA100-S04  | 8 ~ 11 VDC     | 11.25 ~ 8.20 A      | 4%               | 90W                  |
| SMDA100-S05  | 12 ~ 13 VDC    | 8.33 ~ 7.70 A       | 3%               | 100W                 |
| SMDA100-S06  | 13 ~ 16 VDC    | 7.70 ~ 6.30 A       | 3%               | 100W                 |
| SMDA100-S07  | 16 ~ 21 VDC    | 6.30 ~ 4.80 A       | 3%               | 100W                 |
| SMDA100-S08  | 21 ~ 27 VDC    | 4.80 ~ 3.70 A       | 2%               | 100W                 |
| SMDA100-S09  | 27 ~ 33 VDC    | 3.70 ~ 3.00 A       | 2%               | 100W                 |
| SMDA100-S10  | 33 ~ 40 VDC    | 3.00 ~ 2.50 A       | 2%               | 100W                 |

**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 |                      |
| SMDA100-D00   | +3.3V    | 1.0A  | 10A   | 7%     | +12V     | 0.3A  | 3A    | 5%     |          |       |       |        | 69W                  |
| SMDA100-D01   | +5V      | 1.0A  | 10A   | 5%     | +12V     | 0.3A  | 3A    | 5%     |          |       |       |        | 80W                  |
| SMDA100-D02   | +5V      | 1.0A  | 10A   | 5%     | +15V     | 0.3A  | 3A    | 5%     |          |       |       |        | 80W                  |
| SMDA100-D03   | +5V      | 1.0A  | 10A   | 5%     | +24V     | 0.2A  | 2A    | 5%     |          |       |       |        | 80W                  |
| SMDA100-D04   | +3.3V    | 1.0A  | 10A   | 7%     | +5V      | 0.5A  | 5A    | 5%     |          |       |       |        | 55W                  |
| SMDA100-D09   | +12V     | 0.7A  | 7A    | 5%     |          |       |       |        | -12V     | 0A    | 1A    | 5%     | 80W                  |
| SMDA100-D10   | +15V     | 0.6A  | 6A    | 5%     |          |       |       |        | -15V     | 0A    | 1A    | 5%     | 80W                  |
| SMDA100-D12   | +24V     | 0.3A  | 3A    | 5%     |          |       |       |        | -24V     | 0A    | 1A    | 5%     | 80W                  |
| SMDA100-D15   | +5V      | 1.0A  | 10A   | 5%     |          |       |       |        | -24V     | 0A    | 1A    | 5%     | 74W                  |
| SMDA100-T00   | +3.3V    | 1.0A  | 10A   | 7%     | +12V     | 0.3A  | 3A    | 5%     | -12V     | 0A    | 1A    | 5%     | 74W                  |
| SMDA100-T00-1 | +3.3V    | 1.0A  | 10A   | 7%     | +12V     | 0.3A  | 3A    | 5%     | +12V     | 0A    | 1A    | 5%     | 74W                  |
| SMDA100-T01   | +5V      | 1.0A  | 10A   | 5%     | +12V     | 0.3A  | 3A    | 5%     | -5V      | 0A    | 1A    | 5%     | 80W                  |
| SMDA100-T01-1 | +5V      | 1.0A  | 10A   | 5%     | +12V     | 0.3A  | 3A    | 5%     | +5V      | 0A    | 1A    | 5%     | 80W                  |
| SMDA100-T02   | +5V      | 1.0A  | 10A   | 5%     | +12V     | 0.3A  | 3A    | 5%     | -12V     | 0A    | 1A    | 5%     | 80W                  |
| SMDA100-T02-1 | +5V      | 1.0A  | 10A   | 5%     | +12V     | 0.3A  | 3A    | 5%     | +12V     | 0A    | 1A    | 5%     | 80W                  |
| SMDA100-T03   | +5V      | 1.0A  | 10A   | 5%     | +15V     | 0.3A  | 3A    | 6%     | -15V     | 0A    | 1A    | 5%     | 80W                  |
| SMDA100-T03-1 | +5V      | 1.0A  | 10A   | 5%     | +15V     | 0.3A  | 3A    | 6%     | +15V     | 0A    | 1A    | 5%     | 80W                  |
| SMDA100-T04   | +5V      | 1.0A  | 10A   | 5%     | +24V     | 0.3A  | 3A    | 5%     | -24V     | 0A    | 1A    | 5%     | 80W                  |
| SMDA100-T04-1 | +5V      | 1.0A  | 10A   | 5%     | +24V     | 0.3A  | 3A    | 5%     | +24V     | 0A    | 1A    | 5%     | 80W                  |
| SMDA100-T05   | +5V      | 1.0A  | 10A   | 5%     | +24V     | 0.3A  | 3A    | 5%     | -12V     | 0A    | 1A    | 5%     | 80W                  |
| SMDA100-T05-1 | +5V      | 1.0A  | 10A   | 5%     | +24V     | 0.3A  | 3A    | 5%     | +12V     | 0A    | 1A    | 5%     | 80W                  |
| SMDA100-T06   | +3.3V    | 1.0A  | 10A   | 7%     | +12V     | 0.3A  | 3A    | 5%     | -5V      | 0A    | 1A    | 5%     | 74W                  |
| SMDA100-T06-1 | +3.3V    | 1.0A  | 10A   | 7%     | +12V     | 0.3A  | 3A    | 5%     | +5V      | 0A    | 1A    | 5%     | 74W                  |
| SMDA100-T08   | +3.3V    | 1.0A  | 10A   | 7%     | +5V      | 0.3A  | 3A    | 5%     | -12V     | 0A    | 1A    | 5%     | 60W                  |
| SMDA100-T08-1 | +3.3V    | 1.0A  | 10A   | 7%     | +5V      | 0.3A  | 3A    | 5%     | +12V     | 0A    | 1A    | 5%     | 60W                  |

**Electrical Characteristics**

| Parameter                | Test Conditions           | Min. | Typ. | Max. | Unit |
|--------------------------|---------------------------|------|------|------|------|
| Input Voltage            | Operating Voltage         | 90   |      | 264  | VAC  |
| Input Frequency          |                           | 47   |      | 63   | Hz   |
| Power Factor Correction  | Io=Full load, Vin=230 VAC | 0.95 |      | 1    |      |
| Output Power Range       | Vin= 90 to 264 VA C       | 0    |      | 100  | W    |
| Input Current (Low Line) | Io=Full load, Vin=115 VAC |      |      | 1.25 | A    |

|                                 |  |       |     |      |      |
|---------------------------------|--|-------|-----|------|------|
| Input Current (High Line)       | Io=Full load, Vin= 230 VAC                 |       |     | 0.5  | A    |
| Low Line Inrush Current         | Io=Full load, 25°C, Cool start, Vin=115VAC |       | 12  | 15   | A    |
| High Line Inrush Current        | Io=Full load, 25°C, Cool start, Vin=230VAC |       | 26  | 30   | A    |
| Efficiency                      | Io=Full Load, Vin=230VAC                   | 75    | 83  | 88   | %    |
| Line Regulation                 | Io=Full Load                               |       | 0.5 | 1    | %    |
| Load Regulation                 | Vin=230VAC                                 |       | 3   | 7    | %    |
| Over Voltage Protection         |  | 112   |     | 132  | %    |
| Over Current Protection         |  | 110   |     | 150  | %    |
| Transient Response              | Io=Full Load to Half Load, Vin=100VAC      |       |     | 4    | mS   |
| Hold-Up Time                    | Io=Full Load, Vin=110VAC                   | 16    |     |      | mS   |
| Start Up Time                   | Io=Full Load, Vin=100VAC                   | 0.3   | 1.5 | 2    | S    |
| * Ripple & Noise (Peak to Peak) | Full Load, Vin=90VAC                       |       | 0.5 | 1    | %    |
| Safety Ground Leakage Current   | Io= Full Load, Vin=240VAC/60Hz             |       |     | 0.1  | mA   |
| Temperature Coefficient         | All output                                 | -0.04 |     | 0.04 | %/°C |

\* **Note:** The Ripple & Noise which is under 3.3VDC at 2% max.

## Conditions

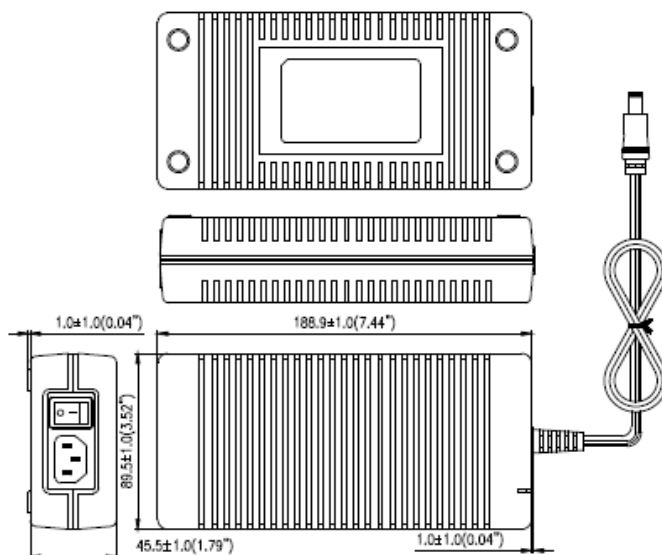
| Parameter   | Test Conditions | Min. | Typ. | Max. | Unit  |
|---|-----------------|------|------|------|-------|
| Operating Temperature                                       |                 | 0    |      | 70   | °C    |
| Storage Temperature   |                 | -40  |      | 85   | °C    |
| Relative Humidity   |                 | 5    |      | 95   | %     |
| Operating Temperature at 25°C, Calculated per MIL-HDBK-217F |                 | 0.1  |      |      | M Hrs |

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

## Approvals and Compliances

| Parameter  | Test Conditions                     | Min. | Unit  |
|--|-------------------------------------|------|-------|
| Dielectric Withstanding Voltage for Primary to secondary | Primary to secondary                | 5600 | VDC   |
| Dielectric Withstanding Voltage for Primary to Ground    | Primary to ground                   | 2800 | VDC   |
| Isolation Resistance                                     | Test Voltage = 2100VDC              | 50   | MΩ    |
| EMI requirements for CISPR-11                            | Vin=220VAC                          | B    | CLASS |
| EMI requirements for FCC PART-18                         | Vin=110VAC                          | B    | CLASS |
| Safety UL/c-UL, TUV/T-mark, CE                           | UL 60601-1, EN 60601-1, IEC 60601-1 | n/a  | n/a   |

## Mechanical and PIN out



**Note:**

1. Dimensions are shown in inches or mm.
2. Weight: 778-800gs approx.
3. Optional output connector