



Preliminary

# ANALOG MODULES, INC.

## MODEL 5727A

CAPACITOR CHARGING  
POWER MODULE

### CAPACITOR CHARGING POWER MODULE

- 2000 W Power Factor Corrected
- Unity Power Factor, 1.0
- IEC/EN 60601 3<sup>rd</sup> Edition Medical Safety Standard
- EN55011, Class A EMC
- Universal AC Input with Automatic Power Limit
- Full and Partial Discharge Auto Switching
- High Efficiency  $\geq 90\%$



### DESCRIPTION:

The **Model 5727A** is a state-of-the-art new OEM Capacitor Charging Power Supply. It features active power factor correction, universal input and full compliance with medical safety standards. Modern components and manufacturing techniques are used to provide the quality and unmatched reliability our customers have come to demand at a price point that is competitive in the market. Designed to be CE marked for worldwide distribution; IEC/EN 60601, 3rd edition medical safety mark; industrial to IEC 61010-1:2010; EMC to EN55011, Class A with optional filter; and EU 2015/863 (RoHS 3) compliant. Certification testing is expected to be completed Q1 2023.

### SPECIFICATIONS:

#### Input

**Voltage:**

100 – 240 VAC, 1  $\emptyset$  50/60 Hz

**Line current:**

12.7 A<sub>RMS</sub> maximum at 120 VAC  
10.8 A<sub>RMS</sub> maximum at 230 VAC

**Power Factor:** >0.99 (typical)

**Efficiency:** 85 to 90% (typical)

**Cooling Requirements**

Internal 100 CFM Fan

**Operating Temperatures**

0° to +40°C

#### Output

**Power**

100 – 130 VAC, 1  $\emptyset$  50/60 Hz, up to 1300 W\*  
200 – 240 VAC, 1  $\emptyset$  50/60 Hz, up to 2000 W

**Voltage** 500 to 4000 VDC Maximum

**Regulation** 0.1% (typical)

**Leakage** <350  $\mu$ A with filter

**Protection**

Open Circuit, Short Circuit,  
Thermal Overload and Over-Voltage

**Size**

8.0" x 5.5" x 5.5" (w/o Filter)

**Weight**

3 lbs.



Specifications subject to change without notice.

### APPLICATIONS:

*Constant Voltage Output for Solid-State Lasers*

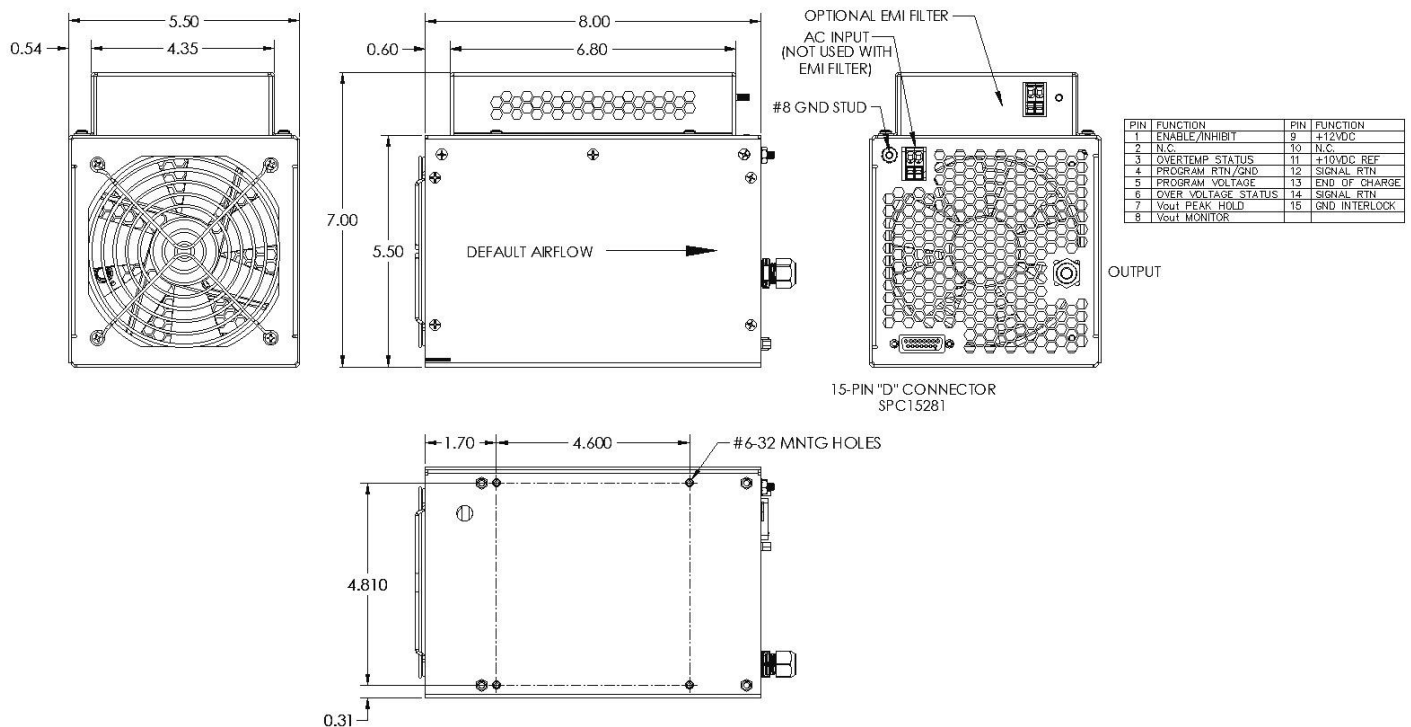
MODEL 5727A - XXXX			
	-500	-1000	-3000
Output Voltage at Full Power	400* to 500 V	800* to 1000 V	2200* to 3000 V

Typical Part Number: **5727A-1000 =**

Input Voltage: 100 – 240 VAC, 1 Ø 50/60 Hz  
 Maximum Output Voltage: 1000 VDC  
 Maximum Output Power: 1300\* – 2000 W

\* 1000 W maximum output power for 120 VAC input with optional EMI filter.

† Capable of operating at lower voltages; output power will be derated on a linear curve below 80% max.



### The AMI Advantage:

1. Designed and manufactured in the USA.
2. >90% efficiency
3. Unity power factor, 1.0.
4. Digitally controlled PFC and converter optimizes operation during the charging cycle in real time.
  - maximize efficiency, including constant power operation
  - smooth out current demand from the power source
  - reduces the peak demand
  - optimal use of power components
- 5 "Soft Touch" regulation is smartly controlled reducing laser jitter.
6. Auto adjustment of output power according to the mains input.
7. Optional EMI filter.
8. Available up to 4 kV.
9. Stackable for more power.
11. Capable of constant voltage output with external capacitor.
12. IEC/EN 60601, 3rd edition, IEC 61010-1:2010; EN55011, Class A
13. Temperature controlled; internal cooling fan.
14. Aggressive pricing for OEM purchases.



Shown with optional EMI filter.