ISOLATED CAPACITOR CHARGING POWER SUPPLY

- 3000W IN 6.3” x 6.3” x 11.3” OEM PACKAGE
- ELECTRONIC POWER FACTOR CORRECTION
- MARKED AND APPROVED TO UL 60601-1 MEDICAL SAFETY STANDARD
- LOW LEAKAGE CURRENT
- LOW EMI
- HIGH EFFICIENCY
- REMOTE HV PROGRAMMING

DESCRIPTION:
The Model 5753 Isolated Capacitor Charging Power Supply uses a proprietary power conversion technique to repeatedly charge energy storage capacitors for pulsed, solid-state laser applications. The Model 5753 provides the highest power density of any similar supply on the market today and can be configured for either positive or negative output voltage. The Model 5753 is designed to meet the isolation and leakage current requirements for the most stringent medical requirements and the control interface can be tailored to meet your present needs. For lower power applications, ask about the AMI Model 5723.

SPECIFICATIONS:

**Input**
- Voltage: 198 to 253VAC, 1Ø, 50/60Hz
- HV Control: 0 to 10V proportional control, 10kΩ input impedance (standard)
- Inhibit: 3.5 to 24VDC, 10kΩ input impedance

**Connections**
- HV: Fischer D105 Series
- Control: DB-15S, 15 pin D-sub
- Power: 3 pos. terminal block
- Cooling: Forced air, fan included

**Operating Temperature**
- 0° to +40°C

**Output**
- Power: 3000W, 400V ≤ V_MAX ≤ 1500V
- 2500W, 1500V < V_MAX ≤ 3000V
- Full power available over a large voltage range. (See power derating curve on reverse.)
- Voltage (Maximum): 400V to 3000V (specify in part number)
- Negative output (add -N to part number)
- Regulation: 0.1%
- Efficiency: 85% to 90% (typical)
- Power Factor: >0.9 (typical)
- Charged Indication: 22VDC via 1kΩ output (typical)

**Leakage Current**
- ≈150µA typical

**Protection**
- Open Circuit, Short Circuit, Thermal Overload, Over-Voltage

**Size**
- 6.3” x 6.3” x 11.3”

**Weight**
- 15 lbs

Specifications subject to change without notice.  
*U.S. Patent No. 5,461,297

APPLICATIONS:

Capacitor Charging for Solid-State Lasers
MODEL 5753-XXXX

Output Voltage (Maximum)

<table>
<thead>
<tr>
<th>Output Voltage</th>
<th>Output Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>400V to 1500V*</td>
<td>3000W</td>
</tr>
<tr>
<td>1600V to 3000V</td>
<td>2500W</td>
</tr>
</tbody>
</table>

Typical Part Number: **5753-1500N-2**

- Output Voltage: -1500VDC (Negative)
- Output Power: 3000W
- Input Voltage: 230VAC, 1Ø, 50/60Hz, terminal block

**MODEL 5753**

**MAXIMUM AVERAGE POWER**

**I/O INTERFACE (-2)**

<table>
<thead>
<tr>
<th>PIN</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>INHIBIT</td>
</tr>
<tr>
<td>2</td>
<td>N/C RESERVED</td>
</tr>
<tr>
<td>3</td>
<td>OVERTEMP STATUS INDICATOR</td>
</tr>
<tr>
<td>4</td>
<td>PROGRAM XIN / GND</td>
</tr>
<tr>
<td>5</td>
<td>PROGRAM VOLTAGE</td>
</tr>
<tr>
<td>6</td>
<td>OVERTENSION STATUS INDICATOR</td>
</tr>
<tr>
<td>7</td>
<td>VOUT PEAK HOLD</td>
</tr>
<tr>
<td>8</td>
<td>VOUT MONITOR</td>
</tr>
<tr>
<td>9</td>
<td>+12VDC</td>
</tr>
<tr>
<td>10</td>
<td>N/C RESERVED</td>
</tr>
<tr>
<td>11</td>
<td>+10V REFERENCE</td>
</tr>
<tr>
<td>12</td>
<td>SIGNAL RETURN</td>
</tr>
<tr>
<td>13</td>
<td>END OF CHARGE INDICATOR</td>
</tr>
<tr>
<td>14</td>
<td>SIGNAL RETURN</td>
</tr>
<tr>
<td>15</td>
<td>GROUND INTERLOCK</td>
</tr>
</tbody>
</table>

**OUTPUT POWER (%)**

**OUTPUT VOLTAGE (%)**

- \( V_{\text{max}} > 1500V \)
- \( V_{\text{max}} \leq 1500V \)