The SM 1690 magnetron power supply is an air-cooled power supply designed to drive the compact H915 magnetron with permanent magnet, with power of 10 kW @ 2.45 GHz.

For power control versatility, the output power of the SM 1690 can be variably adjusted from 10 to 100% using an external 1 to 10 VDC analog signal, or by remote control through a fieldbus interface.

Available in either 400 or 480 VAC line voltage configurations, the SM 1690 is designed to power and control MKS, Alter Product’s TM100 microwave magnetron head; however it will also power other manufacturer’s electrically compatible heads.

The SM 1690 autonomously manages the working status of the magnetron, providing signals to drive the correct pre-heating of the filament and to adjust the filament voltage according to the specific back down curve. In addition, the power supply automatically shuts off the output power in the event of an alarm condition, such as over current or over voltage of the magnetron.

The SM 1690 power supply is packaged in a 19-inch wide, 7U high rack mount enclosure and is built with a rugged steel base and easily removable aluminum panels. Industry standard electrical connectors, dedicated to specific functions, provide simple and easy set up. The power supply high voltage (HV) output, carrying the anodic current, is delivered through an HV connector.

Features & Benefits

- High efficiency power supply design requiring only air cooling simplifies installation and reduces cost
- Low output ripple makes it suitable for most applications
- Advanced filament control results in low maintenance and long magnetron life
- Efficient power stage design results in very low harmonics and inrush current
- “Plug & Play” design for fast and easy installation
### Specifications and Ordering Information

<table>
<thead>
<tr>
<th>Description</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output Power</td>
<td>14 kW max</td>
</tr>
<tr>
<td>Line Input</td>
<td>3 x 400V or 3 x 480V</td>
</tr>
<tr>
<td>Line Frequency</td>
<td>50/60 Hz</td>
</tr>
<tr>
<td>Efficiency</td>
<td>92%</td>
</tr>
<tr>
<td>Output Current</td>
<td>1600 mA max</td>
</tr>
<tr>
<td>Alarm Management</td>
<td>Opening alarm contact, emission of 4 bit alarm code, the alarm is latched and requires a reset procedure</td>
</tr>
</tbody>
</table>

#### Dimensions

- **Width, Rack**: 444 mm (17.48")
- **Width, Front Panel**: 482 mm (18.98")
- **Height, Rack**: 301 mm (11.85")
- **Length, Rack**: 465 mm (18.31")

- **Weight**: 40 kg/88 lbs
- **Cooling Type**: Forced air, 200 m³/h
- **Working Ambient Temp. (max)**: 40°C/104°F
- **Compliance**: CE mark, Directive EMC and LV, through norms EN61010-1, EN61000-6-4, EN61000-6-2
- **Preferred Microwave Magnetron Head**: TM100 (others if electrically compatible)

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**Dimensional Drawing**

*Note: Unless otherwise specified, dimensions are nominal values in millimeters (inches referenced).*