

# Modulator PS1000系列固态调制器

## PS1000 Series Solid-State Modulator



### 产品用途 Application

Modulator PS1000系列固态调制器是一种采用全固态开关与高变比脉冲变压器技术的高压脉冲电源，用于驱动脉冲磁控管，可应用于医学放疗、工业无损检测、海关安检加速器等领域。

Modulator PS1000系列固态调制器可以与电子枪电源、钛泵电源、具有AFC功能的加速器控制系统集成，为客户特定需求提供系统化解决方案。

The PS1000 Series Solid State Modulator are a high Performance and high reliable pulse power source which adopt the solidstate switch and high ratio pulse transformer technology, PS 1000 series solid state modulator are used to drive various magnetron which used in the fields of the medical radiotherapy, industrial non-destructive testing, customs security monitoring and other application systems.

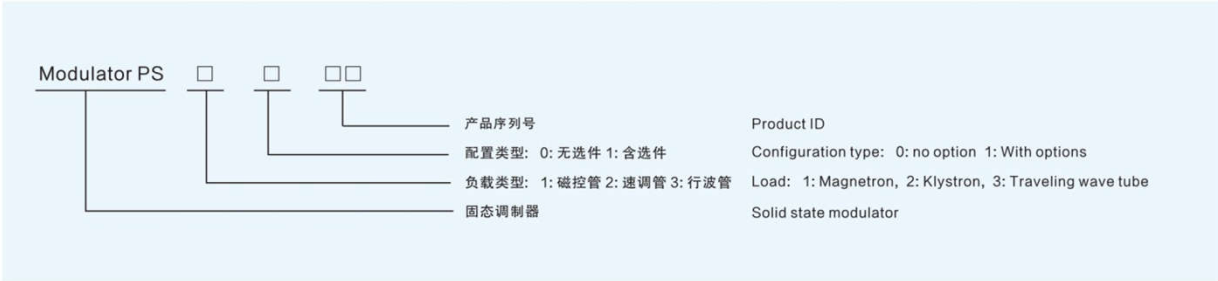
The PS1000 series solid state modulator can be integrated with electron gun power supply, ion pump power supply、accelerator control system with automatic frequency control function according to the requirements of the customers.

### 产品特点 Product Features

- 波形校正技术：在负载阻抗变化情况下，高压输出波形可进行校正，满足用户应用需求
- 打火保护速度快，抗打火能力强
- 高可靠性：源于独特的脉冲调制技术、优异的系统设计和严格的质量控制
- 功能模块化：系统化产品的功能单元采用模块化设计，满足不同的安装要求
- 使用维护成本低

- Waveform correction technology: high voltage output waveform can be corrected to meet the requirement of customer when the load impedance is changed.
- Less than 0.6μs responsive time to load arc, excellent protection ability to load arc.
- Excellent reliability originate from distinctive pulse modulation、excellent system design and rigorous quality control of the PS1000 series modulator
- Function modularization: function modularization scheme is adopted in the PS1000 series modulator and therefore easy to assemble as the different customer requirements
- Low operation and maintenance cost

## 型号定义 Type Definition



## 规格参数 Specification Parameter

输入	
主回路电源	3AC360 ~ 420V 50/60Hz
控制电源	AC200 ~ 240V 50/60Hz
输出	
脉冲电压	32kV ~ 52kV
脉冲电流	50A ~ 120A
最大脉冲功率	6.2MW
最大平均功率	8kW
电压调节精度	0.1%
脉冲宽度	1μs ~ 5μs, 调整步进 0.1μs
重复频率	1Hz ~ 400Hz, 调整步进 1Hz
最大工作比	0.12%
灯丝电源	DC 25V 15A, 恒流限压
灯丝电源不稳定性	< 0.5%
其他	
选件	电子枪电源、钛泵电源、AFC、在线监控系统等
冷却方式	水冷
外形尺寸	可根据客户需求定制

备注: 客户需求如有不同, 可定制。

Input	
Main circuit power supply	3AC360 ~ 420V 50/60Hz
Control power supply	AC200 ~ 240V 50/60Hz
Output	
Pulse voltage	32kV ~ 52kV
Pulse current	50A ~ 120A
Maximum pulse power	6.2MW
Maximum average power	8kW
Voltage regulation accuracy	0.1%
Pulse width	1μs ~ 5μs, adjustment resolution 0.1μs
Repetition frequency	1Hz ~ 400Hz, adjustment resolution 1Hz
Maximum duty ratio	0.12%
Filament power supply	DC 25V 15A, constant current and voltage limiting
Filament power supply instability	< 0.5%
Other	
Options	Electron gun power supply, ion pump power supply, automatic frequency control (AFC), online monitoring system, etc.
Cooling mode	Water-cooling
Dimensions	Could be customized according to customer requirements

Notes: If customer needs change, Can provide customized products.

