osi1210 Series

0–2.5 kV; 5 kW; 4U; low-ripple high-power supply



Product introduction

The OSIMAI osi1210 series high-power high-voltage supply provides ripple better than 0.1%. Air insulation and an internal high response-speed unit enable precise regulation and extremely low arc discharge current. In addition to normal HV-field applications, the supply operates efficiently and reliably with resistive loads and sputtering sources.

Product features

- Output voltage20 kV
- Output power5 kW
- 0.1% peak-to-peak ripple
- Fast recovery and low arc-discharge current
- Conforms to CE standards
- Nanosecond protection response
- Safety interlock
- Customization to user requirements

Specifications

Parameter	Specification
Input	380 VAC ±10%, 50/60 Hz, 20 A.
Output	Selectable maximum voltages from1 to20 kV; maximum power5 kW. Continuously adjustable from zero to maximum; single negative output polarity.
Front-panel indications	HV ON; HV OFF; voltage/current display; overvoltage, overcurrent, short-circuit, arc and overtemperature protection; error-code display.
Voltage control	Local: built-in rotary encoder sets output voltage between zero and maximum. Analog remote: external 0–10 V signal sets zero to maximum output. Digital control: standard Modbus over RS-485 sets output from zero to maximum voltage.
Current control	Local: built-in rotary encoder sets output current between zero and maximum. Analog remote: external 0–10 V signal sets zero to maximum output. Digital control: standard Modbus over RS-485 sets output from zero to maximum current.
Voltage regulation	Load:0.01% from no load to rated load. Line:±0.01% for ±10% input-voltage variation.
Current regulation	Load:0.01% from no load to rated load. Line:±0.01% for ±10% input-voltage variation.
Ripple	Better than0.5% p-p at rated output;0.1% p-p optional.
Temperature coefficient	Voltage and current: better than 100 ppm/°C.
Stability	Less than 0.1% per 8 hours after a 0.5-hour warm-up.
Ambient temperature	Operating:0°C to45°C. Storage:−20°C to80°C.
Voltage/current indication	Four-digit LED display; accuracy±1% at rated output.
Dimensions	Width482 mm,height178 mm,depth520 mm.
Connector	Metal connector; standard HV cable length2 m.
Weight	22 kg.
Rise time	<300 ms;10 ms custom option.
Adjustment resolution	0.02% of rated voltage.
Output accuracy	<0.2% (repeatability).
Analog control	0–10 V; repeatability0.2%.
Voltage/current resolution	0.1 V /1 mA.
Remote-control interface	RS-485; RJ45.
Humidity	10–90%, non-condensing.

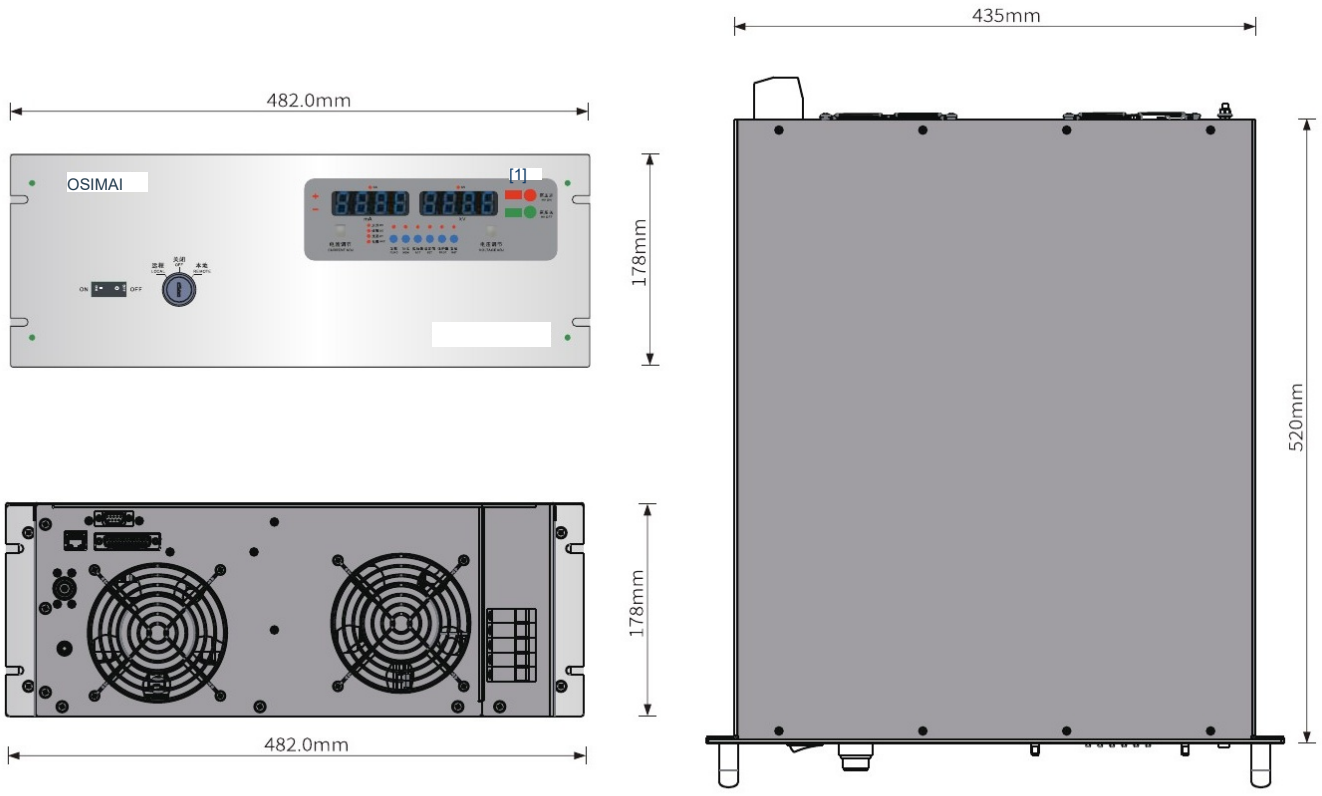
Model selection — 5000 W (customizable)

Rated output (kV)	Rated output (mA)	Positive model	Negative model
1	5000	osi1210P1-5000	osi1210N1-5000
2.5	2000	osi1210P2.5-5000	osi1210N2.5-5000
5	1000	osi1210P5-5000	osi1210N5-5000
10	500	osi1210P10-5000	osi1210N10-5000
20	250	osi1210P20-5000	osi1210N20-5000

Typical applications

Etching; coating; semiconductor applications; ion sources; accelerators; withstand-voltage testing; burn-in testing.

Outline dimensions



[1] osi1210