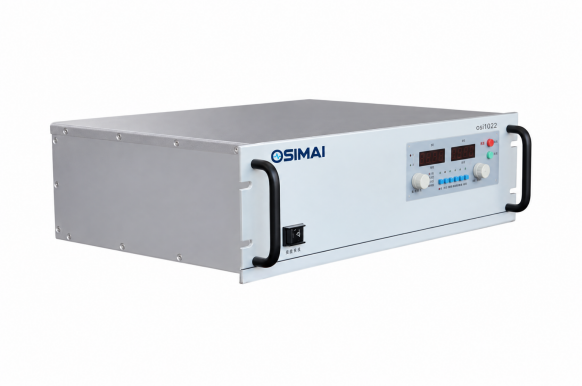
osi1215 Series

5–8 kW;1–50 kV;repetition frequency1 kHz



Product introduction

The OSIMAI osi1215 series is a high-performance standard19-inch rack-mount HV supply. Digital control supports varied custom functions. Nanosecond arc transient response ensures fault-free operation, with full-load efficiency above90%. Comprehensive functions and a broad output range are provided; software can add user-required custom functions.

Product features

- Output voltage1–50 kV
- Output power8 kW
- Digitally programmable
- Nanosecond protection response
- Repetition frequency1 kHz
- Overvoltage,overcurrent,short-circuit,arc and overtemperature protection
- Isolated RS-485 digital communication
- Safety interlock

Specifications

Parameter	Specification
Input	380 VAC ±10%,50/60 Hz.
Output	Selectable maximum voltages1–50 kV;maximum power8 kW.Continuously adjustable from zero to maximum;single negative 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: better than 0.01% from no load to rated load. Line: ±0.01% for ±10% input-voltage variation.
Current regulation	Load: better than 0.01% from no load to rated load. Line: ±0.01% for ±10% input-voltage variation.
Ripple voltage	Better than1% p-p at rated output;0.1% p-p optional.
Ambient temperature	Operating: 0°C to +50°C. Storage: −20°C to +80°C.
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.
Voltage/current indication	Four-digit LED display;accuracy±1% at rated output.
Dimensions	Width482 mm,height267 mm,depth500 mm.
High-voltage cable	Recessed plastic insulating conduit and inserted cable connected through a metal connector;standard length2 m.
Weight	Approximately40 kg.

Model selection — 8000 W (customizable)

Rated output (kV)	Rated output (mA)	Positive model	Negative model
5	1600	osi1215P5-8000	osi1215N5-8000
10	800	osi1215P10-8000	osi1215N10-8000
20	400	osi1215P20-8000	osi1215N20-8000
30	266.67	osi1215P30-8000	osi1215N30-8000
50	160	osi1215P50-8000	osi1215N50-8000

Input terminals

Marking	Signal
U	Live
V	Live
W	Live
G	Ground

RS-485 communication interface

Marking	Signal
A	Signal wire
B	Signal wire
G	Signal ground

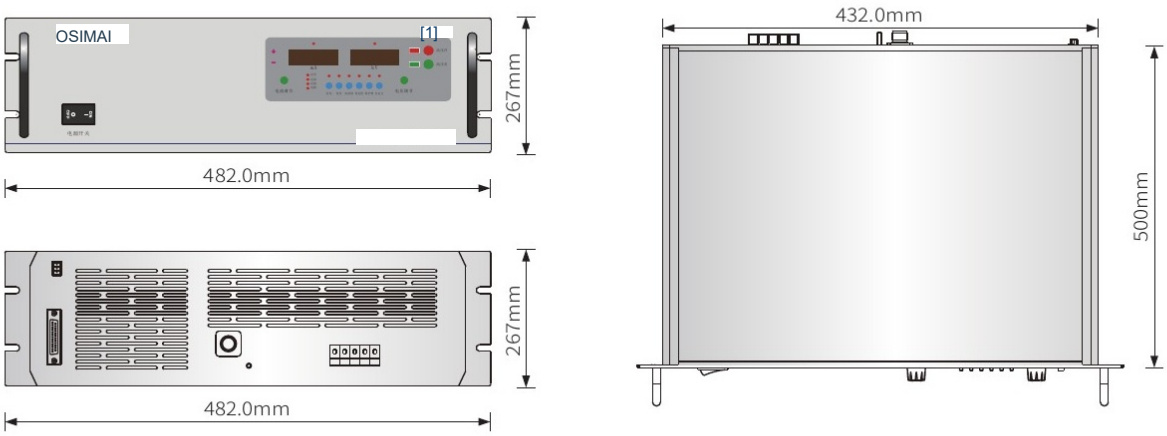
DB25 connector signal definitions

Pin	Signal
1	Remote-control indication
2	Constant-voltage mode
3	HV OFF indication
4	HV ON signal
5	Remote-control enable
6	Safety interlock
7	+15 V
8	Current setting
9	Voltage setting
10	+15 V
11	+10 V
12	Voltage monitor
13	Current monitor
14	Fault indication
15	Constant-current mode
16	HV ON indication
17	HV OFF signal
18	Fault reset
19	Ground
20	Ground
21	Ground
22	Ground
23	Ground
24	Ground
25	Ground

Typical applications

High-voltage capacitor charging;Ion implantation; electrostatic spraying; electrostatic flocking; withstand-voltage testing; particle acceleration; electrostatic fields; ion-beam supplies; electron-beam supplies; accelerator supplies; insulation testing; deep-sea dual-grid shore stations; high-voltage capacitor charging; high-voltage field collection; scientific research and other applications.

Outline dimensions



[1] osi1215