osi1633 Series

1–32 kV; 1.6 kW; nanosecond protection response



Product Introduction

The OSIMAI osi1633 series is a modular high-voltage power supply with analog control and CAN/RS485 communication control to meet varied customer requirements. Nanosecond arc-protection response ensures fault-free operation. Efficiency can exceed 90%.

Product Features

- Maximum output voltage 32 kV
- Remote analog and remote CAN/RS485 communication control
- Overvoltage, overcurrent, short-circuit and arc protection
- Parameters and dimensions customizable to user requirements
- Maximum output power 1.6 kW
- Input and output do not share ground
- Nanosecond protection response

Specifications

Parameter	Description
Input	220 VAC ±10%, 50/60 Hz.
Output	Selectable maximum voltages from 1–32 kV; maximum output power 1.6 kW; continuously adjustable from zero to maximum voltage; positive or negative single-polarity output.
Voltage control	External 0–10 V analog signal controls zero to maximum output voltage.
Voltage line regulation	<0.5%.
Load regulation	<0.5%.
Ambient temperature	Operating: 0 to +50°C. Storage: −20 to +80°C.
Stability	Less than 1% per 8 hours after a 0.5-hour warm-up.
Dimensions	W 210 × H 140 × D 275 mm.
Weight	Approximately 8.65 kg.
High-voltage cable	Recessed plastic insulating conduit and inserted high-voltage cable connect through a 16 mm diameter metal connector. Standard cable length 2 m.
Analog output voltage/current control	External potentiometers use the internal 10 V reference to control output voltage and current.
Voltage/current indication	DB15 terminal includes 0–10 V voltage/current indication signals for external digital or analog meters.

Model Selection (Customizable)

Output kV	Output mA	Positive model	Negative model
10	160	osi1633P10-1600	osi1633N10-1600
15	40	osi1633P15-600	osi1632N15-600
32	31.25	osi1633P32-1000	osi1633N32-1000

Input Terminals

Mark	Signal
L	Line
N	Neutral
G	Earth
/	/

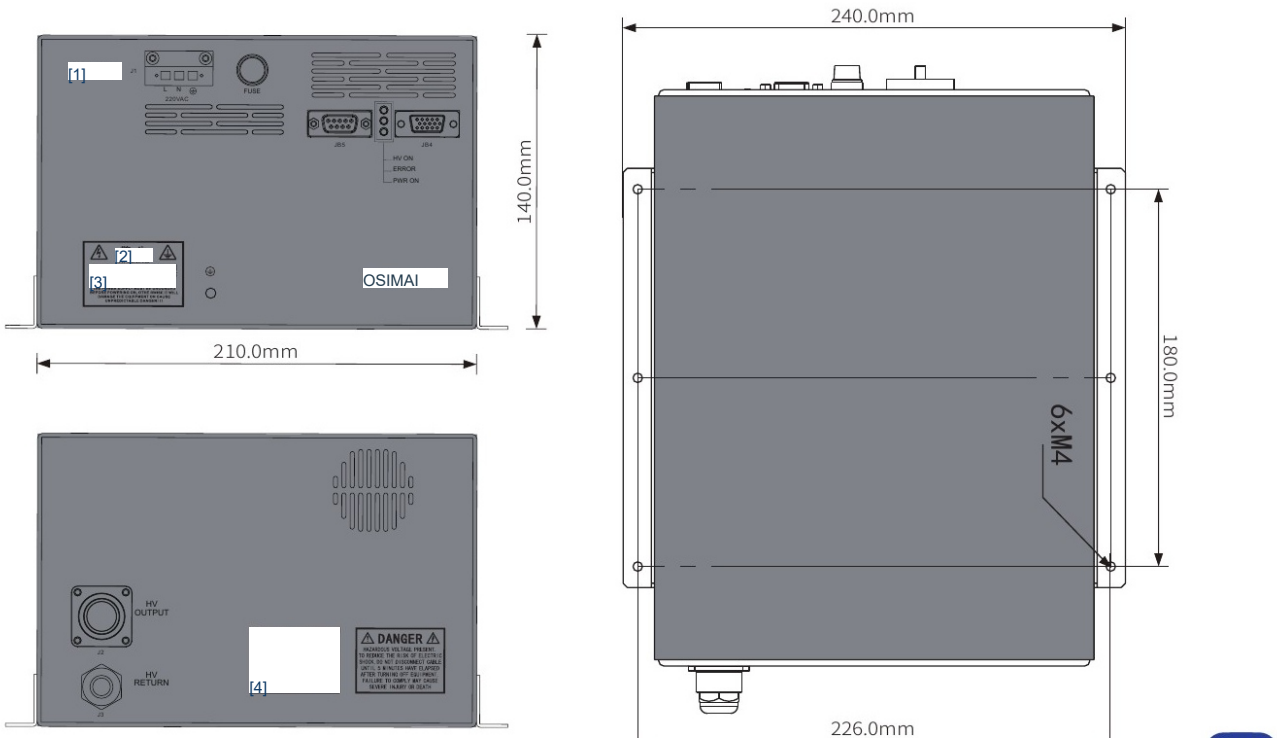
DB15 Connector Signal Definitions

Pin	Signal	Description
1	Current monitor	0–10 V = 0–100% rated output
2	+10 V	+10 VDC; 1 mA maximum
3	NC	/
4	NC	/
5	NC	/
6	Voltage monitor	0–10 V = 0–100% rated output
7	NC	/
8	Voltage setting input	0–10 V = 0–100% rated output
9	Local/remote control switching	Ground = DB15 control; open = remote CAN/RS485 communication control
10	Signal ground	High-voltage switching signal ground
11	Analog ground	Voltage setting and monitor ground
12	NC	/
13	NC	/
14	NC	/
15	High voltage ON/OFF	Ground = ON; open = OFF

Typical Applications

Capacitor charging; cable-fault detection.

Dimensions



[1] osi1633

[2] WARNING

[3] Ground the supply before power-on.

[4] DANGER — HIGH VOLTAGE. To reduce electric-shock risk, do not disconnect the high-voltage cable within 5 minutes after power is switched off. Failure to comply may cause injury or death.

Equipment Safety Warnings

WARNING: The power supply must be grounded before power is applied. Failure to comply may damage equipment or cause unpredictable hazards.

DANGER — HIGH VOLTAGE. To reduce electric-shock risk, do not disconnect the high-voltage cable within 5 minutes after power is switched off. Failure to comply may cause injury or death.