osi1630 Series

5 kV output voltage; maximum 300 W high-voltage power supply



Product Introduction

The OSIMAI osi1630 series is a modular high-voltage power supply with external analog and host-computer control to meet varied customer requirements. Efficiency exceeds 90%. The series is fully featured and offers a wide output range.

Product Features

- Maximum output voltage 5 kV
- Maximum output power 300 W
- Nanosecond protection response
- Overvoltage / overcurrent protection
- Customization available

Specifications

Parameter	Description
Input	220 VAC ±10%, 50/60 Hz.
Output	5 kV, 300 W.
Voltage control	External analog: 0–10 V controls output from zero to maximum voltage. Host computer controls output voltage via RS-232.
Current control	External analog: 0–10 V controls output from zero to maximum current. Host computer controls output current via RS-232.
Voltage regulation	Load: better than 0.01%, no load to rated load. Line: ±0.01% for ±10% input-voltage change.
Current regulation	Load: better than 0.01%, no load to rated load. Line: ±0.01% for ±10% input-voltage change.
Ripple	Better than 1% rms at rated output.
Ambient temperature	Operating: 0 to +50°C. Storage: −20 to +80°C.
Temperature coefficient	Voltage and current: better than 100 ppm/°C.
Stability	Less than 0.05% per 8 hours after a 0.5-hour warm-up.
Dimensions	W 152 × H 120 × D 304 mm.
Weight	4.2 kg.
High-voltage cable	Recessed plastic insulating conduit and inserted cable connect through a 16 mm / 20 mm diameter metal connector. Standard cable total length 2 m.
Remote voltage/current indication	15-pin terminal includes voltage/current monitor signals for external digital or analog meters.

Model Selection — 300 W (Customizable)

Output kV	Output mA	Positive model	Negative model
5	100	osi1630P3-300	osi1630N3-300
30	60	osi1630P5-300	osi1630N5-300

Input Terminals

Mark	Signal
L	Line
N	Neutral
G	Earth
/	/

RS-232 Communication Interface

Pin	Signal	Description
1	NC	/
2	TX out	Transmit data
3	RX in	Receive data
4	NC	/
5	SGND	Ground
6	NC	/
7	NC	/
8	NC	/
9	NC	/

DB15 Connector Signal Definitions

Pin	Signal	Description
1	Supply fault	Open collector, 35 V at maximum 10 mA
2	Current programming input	0–10 V = 0–100% rated output; Zin = 10 MΩ
3	Voltage programming input	0–10 V = 0–100% rated output; Zin = 10 MΩ
4	NC	/
5	NC	/
6	NC	/
7	NC	/
8	Voltage monitor	0–10 V = 0–100% rated output; Zout = 4.99k, 1%; transistor ON = OVP
9	Signal ground	Ground
10	Current monitor	0–10 V = 0–100% rated output; Zout = 4.99k, 1%
11	High-voltage enable input	Connect to pin 12 to enable high voltage
12	High-voltage enable output	+15 V when open; ≤15 mA when closed
13	NC	Not connected
14	High-voltage ON output signal	Open collector, 35 V at maximum 10 mA
15	Spare	Not connected

Typical Applications

Electrostatic dust removal; oil-fume purification; capacitor charging; electrostatic spraying; electron-beam power supplies; accelerator power supplies.

Dimensions







