osi1622 Series

30 kV; 30 W; high stability; low ripple and noise



Product Introduction

The OSIMAI osi1622 is an adjustable/fixed-polarity modular high-voltage power supply, fully encapsulated for system or benchtop operation. It offers a wide output-voltage range up to 30 kV. An internal multi-turn potentiometer controls output voltage locally, and remote analog voltage or current programming is provided. Analog monitor outputs provide remote monitoring of high-voltage and current outputs.

Product Features

- Compact model with voltage up to 30 kV
- High stability
- Low ripple and noise
- Analog control, remote/local
- RS-232 control, digital version only
- Voltage and current monitoring
- Arc and short-circuit protection
- OEM customization available

Specifications

Parameter	Description
Input voltage	AC: 100–240 VAC ±10%, 50/60 Hz, 1 A. DC: 24 VDC ±10%, 2 A.
Voltage regulation	Line: ±0.005% of maximum for 90–240 VAC input variation; ±0.005% of maximum for ±10% VDC input variation. Load: ±0.01% of maximum for output-current change from zero to maximum rated.
Current regulation	Line: ±0.05% of maximum current for 90–240 VAC input variation; 0.05% of maximum current for ±10% VDC input variation. Load: 0.2% of maximum current for output-voltage change from zero to minimum rated.
Ripple	At rated output voltage: minimum 75 mV, maximum 1.8 V.
Temperature coefficient	Voltage and current: better than 50 ppm/°C.
Stability	After 0.5-hour warm-up: less than 0.01% per hour and 0.02% per 8 hours.
Ambient temperature	Operating: 0 to +50°C. Storage: −40 to +85°C.
Humidity	20–85% RH, non-condensing.
Local control	Internal multi-turn potentiometer controls zero to maximum output voltage, ±0.2%.
Remote programming	0 to +5 VDC analog input corresponds to zero to maximum rated output. Accuracy ±(0.1% of setting + 0.1% of maximum). Programming input impedance 20 MΩ.
Voltage monitoring	0 to +5 V corresponds to zero to maximum output voltage. Accuracy ±(0.1% of reading + 0.1% of maximum). Monitor impedance 10 kΩ.
Current monitoring	0 to +5 V corresponds to zero to maximum output current. Accuracy ±(2.0% of reading + 1.0% of maximum). Monitor impedance 10 kΩ.
Dimensions	AC-input model: W 77 × H 132 × D 179 mm. DC-input model: W 59 × H 132 × D 179 mm.
Weight	AC-input model: 2 kg. DC-input model: 1.7 kg.

Model Selection (Customizable)

Output kV	Output mA	Positive model	Negative model
1	30	osi1622P1-30	osi1622N1-30
10	3	osi1622P10-30	osi1622N10-30
20	1.5	osi1622P20-30	osi1622N20-30
30	1	osi1622P30-30	osi1622N30-30

DB15 Connector Signal Definitions

Pin	Signal	Description
1	Local voltage programming	Multi-turn front-panel potentiometer
2	Receive input (optional)	RS-232 receive data
3	Transmit output (optional)	RS-232 transmit data
4	Voltage programming input	0–5 V = 0–100% rated output; Zin = 20 MΩ
5	Signal ground	RS-232 ground (optional)
6	Signal ground	Ground
7	+5 V reference output	+5 V; maximum 1 mA
8	High-voltage enable input	Active low; enables high voltage
9	Current programming input	0–5 V = 0–100% rated output; Zin = 20 MΩ
10	Current monitor	0–5 V = 0–100% rated output; Zout = 10 kΩ
11	Voltage monitor	0–5 V = 0–100% rated output; Zout = 10 kΩ
12	High-voltage enable output	Active low; high voltage enabled
13	Signal ground	Ground
14	NC	/
15	NC	/

Typical Applications

Spectroscopy; detectors; electron-beam systems; general laboratory use.

Dimensions

