osi1629 Series

70 kV; 200 W / 350 W; high stability; low ripple and noise



Product Introduction

The OSIMAI osi1629 series modular high-voltage power supply provides up to 350 W output power. A built-in resonant inverter offers efficiency up to 80% and fast dynamic response.

Product Features

- Output voltages from 1–70 kV
- Overvoltage and short-circuit protection
- EMI/RFI input filtering
- Output current and voltage test points
- Internal 10 V reference
- Output-disable control through TTL signal
- OEM customization available

Specifications

Parameter	Description
Input voltage	200 W: 115 VAC ±10%, 2.5 A, 50/60 Hz. 350 W: 115 VAC ±10%, 4.3 A, 50/60 Hz. 200 W: 220 VAC ±10%, 1.3 A, 50/60 Hz. 350 W: 220 VAC ±10%, 2.2 A, 50/60 Hz.
Optional input	200 W: 110 VAC ±10%, 2.8 A, 50/60 Hz. 350 W: 110 VAC ±10%, 4.9 A, 50/60 Hz. Specify input voltage when ordering.
Output voltage	Models from 1–70 kV, 200 W or 350 W; each available with positive or negative output polarity.
Voltage regulation	Load: 0.01% of output voltage from no load to full load. Line: ±0.01% for ±10% input-voltage variation.
Current regulation	Load: 0.01% of output current as voltage varies from zero to rated voltage. Line: 0.01% of rated current over specified input range.
Efficiency	80%, typical.
Ripple	200 W: better than 0.1% peak-to-peak at rated output. 350 W: better than 0.2% peak-to-peak at rated output.
Switching frequency	45–65 kHz.
Ambient temperature	Operating: 0 to +40°C. Storage: −40 to +85°C.
Temperature coefficient	Voltage and current: better than 100 ppm/°C.
Stability	After 0.5-hour warm-up: less than 0.01% per hour; less than 0.02% per 8 hours.
Cooling	200 W: natural cooling. 350 W: fan cooling, rear air intake.
Dimensions	1–40 kV: W 273 × H 81 × D 254 mm. 50–70 kV: W 276 × H 106.5 × D 351 mm.
High-voltage cable	≤40 kV: non-detachable cable. >40 kV: detachable cable, 1 m long.

Model Selection (Customizable)

Output kV	Output mA	Positive model	Negative model
1	350	osi1629P1-350	osi1629N1-350
10	35	osi1629P10-350	osi1629N10-350
20	17.5	osi1629P20-350	osi1629N20-350
30	11.67	osi1629P30-350	osi1629N30-350
50	7	osi1629P50-350	osi1629N50-350
60	5.83	osi1629P60-350	osi1629N60-350
70	5	osi1629P70-350	osi1629N70-350

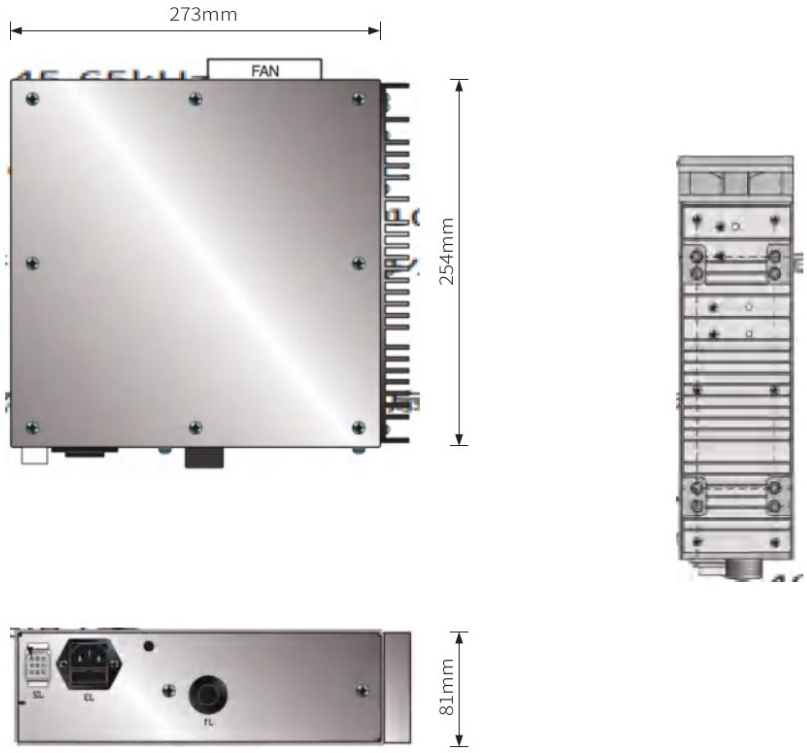
DB9 Connector Signal Definitions

Pin	Signal	Description
1	+10 VDC reference	+10 VDC; maximum 1 mA
2	Current programming	0–10 VDC = 0–100% rated output; Zin = 10 MΩ
3	Voltage monitor	0–10 VDC = 0–100% rated output; Zout = 10 kΩ
4	Voltage programming	0–10 VDC = 0–100% rated output; Zin = 10 MΩ
5	Common ground	Power ground
6	Current monitor	0–10 VDC = 0–100% rated output; Zout = 10 kΩ
7	Enable/disable	Ground = disabled; open = high voltage ON
8	OVP indicator	Collector connected to +5 VDC through 1 kΩ resistor; transistor ON = OVP
9	Signal return	Signal return

Typical Applications

X-ray systems; electron-beam systems; capacitor-charging systems.

Dimensions



Source overlapping labels retained.

Switching frequency: 45–65 kHz. Ambient temperature: operating 0 to +40°C; storage −40 to +85°C. Temperature coefficient: voltage and current better than 100 ppm/°C. Stability: less than 0.01% per hour and 0.02% per 8 hours after a 0.5-hour warm-up. Cooling: 200 W natural cooling; 350 W fan cooling with rear air intake. Dimensions: 1–40 kV, W 273 × H 81 × D 254 mm; 50–70 kV, W 276 × H 106.5 × D 351 mm. High-voltage cable: ≤40 kV non-detachable; >40 kV detachable, 1 m long.