osi1620 Series

6 kV; 30 W; less than 1U high



Product Introduction

The OSIMAI osi1620 series is a miniature 30 W regulated high-voltage DC–DC converter product line offering voltages up to 6 kV. Voltage- and current-mode monitoring and control simplify high-voltage integration. The proprietary design provides accurate, reliable high voltage with higher efficiency and low electromagnetic interference. Its small size, digitally compatible voltage and current monitors and controls, and excellent thermal management make it suitable for a wide range of high-voltage applications.

Product Features

- +24 VDC input, 22–30 V
- Output voltage and current regulation
- 0–100% programmable output voltage and current
- Voltage and current monitor outputs
- Short-circuit, arc and overload protection
- Onboard +5 V reference
- Efficiency >80%
- Excellent heat dissipation
- Output ripple as low as 0.01%

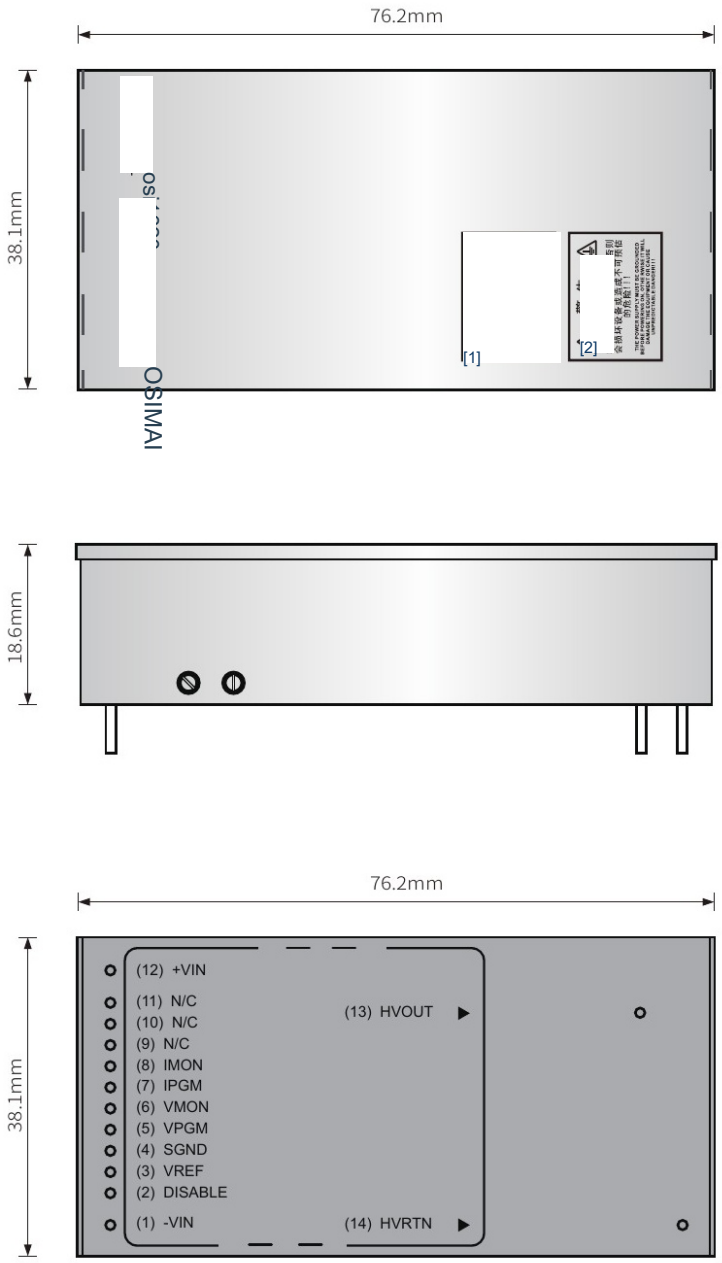
Specifications

Parameter	Description
Input	+24 VDC.
Output	Rated voltage 6 kV, rated current 150 mA; 0–100% programmable output voltage and current.
Voltage regulation	Load: 0.01%, no load to rated load. Line: ±0.01% for ±10% input-voltage change.
Current regulation	Load: 0.01%, no load to rated load. Line: ±0.01% for ±10% input-voltage change.
Ripple voltage	Better than 1% rms at rated output; 0.1% rms optional.
Ambient temperature	Operating: −40 to +70°C. Storage: −55 to +105°C.
Temperature coefficient	Voltage and current: better than 100 ppm/°C.
Cooling	Natural convection.
Stability	Less than 0.1% per 8 hours after a 0.5-hour warm-up.
Dimensions	W 38.1 × H 18.6 × D 76.2 mm.
Weight	0.12 g.

Typical Applications

Mass spectrometry; electrophoresis; electron and ion beams; electrostatic chucks; capacitor charging; high-voltage bias; photomultiplier tubes; scanning electron microscopy.

Dimensions



[1] 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.

[2] WARNING: Ground the supply before applying power to prevent equipment damage and unpredictable hazards.

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.