osi1606 Series

0.3–10 kV, 2–6 W



Product introduction

The osi1606 series is a miniature high-voltage power module with output voltage 0.3–10 kV and output power 2–6 W. It features a miniaturized design, 10 ppm ultra-low noise, 10 ppm/hour stability, a 10 ppm/°C temperature coefficient and six-sided shielding. All models provide external potentiometer or reference-voltage programming, monitoring, and arc, short-circuit and overload protection.

Product features

- 10 ppm/hour stability
- 10 ppm ultra-low noise
- 10 ppm/°C temperature coefficient
- Six-sided shielding
- External potentiometer or voltage programming
- Customization available to user requirements

Specifications

Parameter	Specification
Input	+24 VDC ±2%; input current 500 mA.
Output	Selectable output ratings: 0.3, 0.5, 1, 1.5, 2, 2.5, 3, 4, 5, 6, 8 and 10 kV.
Stability	Less than 0.001% per hour after a 0.5-hour warm-up.
Temperature coefficient	Voltage and current: better than 10 ppm/°C.
Ripple	Better than 10 ppm peak-to-peak at rated output.
External voltage control	External 20 kΩ potentiometer or Vp-in control voltage 0 to +10 VDC; Zin = 100 kΩ.
Voltage monitor	0 to +10 VDC = 0–100% rated output; Zout = 20 kΩ; accuracy ±1%.
External current control	External 20 kΩ potentiometer or Ip-in control voltage 0 to +10 VDC; Zin = 100 kΩ.
Current monitor	0 to +10 VDC = 0–100% rated output; Zout = 20 kΩ; accuracy ±1%.
Voltage line regulation	±0.001% for ±2% input change.
Voltage load regulation	±0.01%, no load to rated load.
Ambient temperature	Operating: 0°C to +50°C. Storage: −40°C to +80°C.
Operating humidity	0–90% relative humidity, non-condensing.
Cooling	Natural convection.
Dimensions	70 mm wide, 22 mm high, 57 mm deep.
Weight	Approximately 0.15 kg.

Model selection

Output (kV)	Output (mA)	Positive polarity	Negative polarity
1	2	osi1606P1-2	osi1606N1-2
1	3	osi1606P1-3	osi1606N1-3
1	4	osi1606P1-4	osi1606N1-4
1	5	osi1606P1-5	osi1606N1-5
1	6	osi1606P1-6	osi1606N1-6
2	1	osi1606P2-2	osi1606N2-2
2	1.5	osi1606P2-3	osi1606N2-3
2	2	osi1606P2-4	osi1606N2-4
2	2.5	osi1606P2-5	osi1606N2-5
2	3	osi1606P2-6	osi1606N2-6
3	0.67	osi1606P3-2	osi1606N3-2
3	1	osi1606P3-3	osi1606N3-3
3	1.25	osi1606P3-4	osi1606N3-4
3	1.67	osi1606P3-5	osi1606N3-5
3	2	osi1606P3-6	osi1606N3-6
4	0.5	osi1606P4-2	osi1606N4-2
4	0.75	osi1606P4-3	osi1606N4-3
4	1	osi1606P4-4	osi1606N4-4
4	1.25	osi1606P4-5	osi1606N4-5
4	1.5	osi1606P4-6	osi1606N4-6
5	0.4	osi1606P5-2	osi1606N5-2
5	0.6	osi1606P5-3	osi1606N5-3
5	0.8	osi1606P5-4	osi1606N5-4
5	1	osi1606P5-5	osi1606N5-5
5	1.2	osi1606P5-6	osi1606N5-6
6	0.33	osi1606P6-2	osi1606N6-2
6	0.5	osi1606P6-3	osi1606N6-3
6	0.67	osi1606P6-4	osi1606N6-4
6	0.83	osi1606P6-5	osi1606N6-5
6	1	osi1606P6-6	osi1606N6-6
8	0.25	osi1606P8-2	osi1606N8-2
8	0.38	osi1606P8-3	osi1606N8-3

Output (kV)	Output (mA)	Positive polarity	Negative polarity
8	0.5	osi1606P8-4	osi1606N8-4
8	0.63	osi1606P8-5	osi1606N8-5
8	0.75	osi1606P8-6	osi1606N8-6
10	0.2	osi1606P10-2	osi1606N10-2
10	0.3	osi1606P10-3	osi1606N10-3
10	0.4	osi1606P10-4	osi1606N10-4
10	0.5	osi1606P10-5	osi1606N10-5
10	0.6	osi1606P10-6	osi1606N10-6

Typical applications

Mass spectrometry; photomultiplier tubes; microchannel plates; proportional counters; Geiger tubes; avalanche photodiodes; solid-state detectors; ionization chambers; gas chromatography; electron-multiplication detectors; nuclear instrumentation; electrophoresis; DNA sequencing; radiation counters; electron beams; ion beams; high-voltage bias; dielectric withstand testing; precision lens image intensifiers; semiconductor testing; electrostatic discharge (ESD) testing; pulsed power supplies; capacitor charging; life sciences; medical and chemical applications; scientific experiments; industrial applications.

Outline dimensions

Dimensions in mm.

