osi1607 Series

3 kV, 3 W, PCB-mount high-voltage power supply



Product introduction

The osi1607 module is designed for PCB mounting, with high reliability, small size and low weight. Its compact, efficient design provides low ripple, high stability and an output voltage range from 300 V to 3 kV. Remote control, arc protection and short-circuit protection are included. An aluminum enclosure prevents mutual interference between the power supply and external circuitry.

Product features

- 3 kV output voltage
- 3 W rated power
- Positive or negative polarity selectable
- Arc and continuous short-circuit protection
- Low stored energy
- High reliability
- Internal 5 V reference
- Small size, low ripple

Specifications

Parameter	Specification
Input voltage	+12 VDC ±1 V; other input voltages optional.
Input current	<0.65 A at full-load output.
Output voltage	0–3 kV, continuously adjustable; positive or negative polarity selectable.
Output voltage control	Remote 0–5 VDC programming provides 0–3 kV output.
Output power	3 W continuous.
Voltage regulation	Line: better than 50 ppm for 1 V input change (osi1607*0.3-3: better than 100 ppm). Load: better than 0.05% at rated output voltage for a change from 100 μA to full load (osi1607*0.3-3: better than 0.01%). (<0.01% applies to osi1607-0.3 supplies.)
5 VDC reference	+5.0 V (±0.2 V), maximum output 1 mA.
Ambient temperature	Operating: 0°C to +50°C. Storage: −35°C to +85°C.
Temperature coefficient	Voltage and current: better than 50 ppm/°C.
Stability	Less than 0.05% per 8 hours after a 1-hour warm-up.
Humidity	0–90%, non-condensing.
Dimensions	52.6 mm wide, 28 mm high, 97.6 mm deep.
Weight	Supplies ≤1 kV: 80 g. Supplies >1 kV: 160 g.

Model selection (customizable)

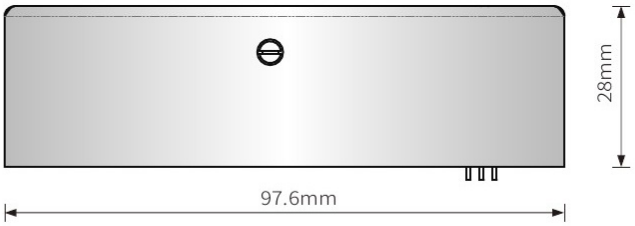
Output (kV)	Output (mA)	Positive polarity	Negative polarity
1	3	osi1607P1-3	osi1607N1-3
2	1.5	osi1607P2-3	osi1607N2-3
3	1	osi1607P3-3	osi1607N3-3

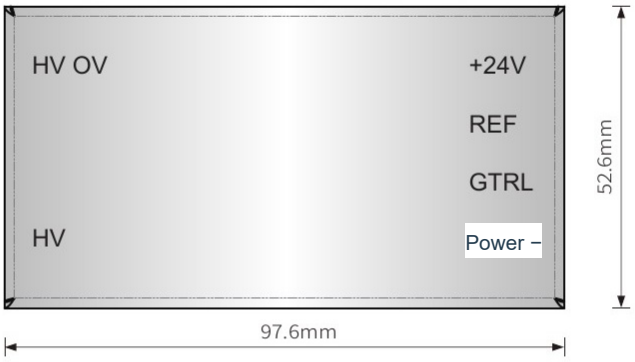
Typical applications

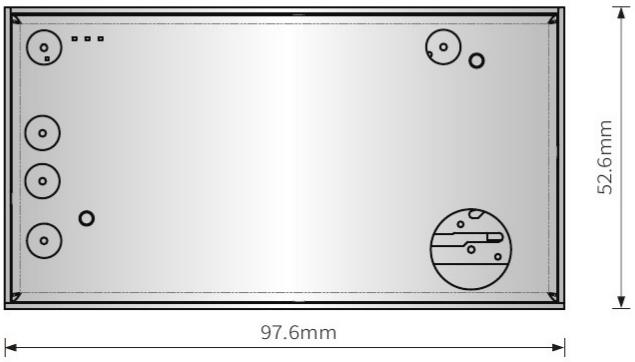
Photomultiplier tubes; precision lenses; image intensifiers; nuclear instrumentation; spectroscopy instruments.

Outline dimensions

Dimensions in mm.


28mm
97.6mm


HV OV
+24V
REF
GTRL
HV
Power –
52.6mm
97.6mm


52.6mm
97.6mm