osi1608 Series

500 V–7.5 kV, 1.875–4 W, low-cost modular design



Product introduction

The osi1608 modular high-voltage supply provides excellent regulation and fixed-polarity output. These fully encapsulated modules are specially designed for extremely low ripple and noise. Output voltage supports local or remote control, and a ground-referenced voltage-monitor signal is provided. A positive supply or a positive/negative supply can power the module for application flexibility.

Product features

- 500 V–7.5 kV, 1.875–4 W
- Low-cost modular design
- Excellent stability and regulation
- Low noise and low ripple
- Arc and short-circuit protection

Specifications

Parameter	Specification
Input voltage	+24 VDC to +30 VDC, 400 mA; ±12 VDC to ±18 VDC, 400 mA.
Output polarity	Positive or negative polarity selectable.
Output voltage	See model-selection table.
Output current	See model-selection table.
Output power	1.875 W, 2 W, 2.5 W, 3 W, 4 W.
Voltage regulation	Load: ≤0.001%, no load to rated load. Line: ≤0.001% for ±10% input change.
Stability	After a 0.5-hour warm-up: ≤0.005% per hour; <0.02% per 8 hours.
Accuracy	Remote programming: ±2% of setting (maximum +0.5%). Voltage monitoring: ±2%.
Temperature coefficient	Voltage and current: better than 50 ppm/°C.
Arc/short-circuit protection	Arc and short-circuit protection; short-circuit output current limited to less than 150% of maximum rated output current.
Ambient temperature	Operating: 0°C to +50°C. Storage: −40°C to +85°C.
Humidity	20–85% relative humidity, non-condensing.
Interface connector	12-position card-edge connector; mating accessory supplied.
High-voltage cable	Fixed 610 mm RG-59B/U shielded cable supplied.
Cooling	Air cooling.
Dimensions	98 mm wide, 32 mm high, 160 mm deep.
Weight	Approximately 1 kg.

Model selection (customizable)

Output (kV)	Output (mA)	Positive polarity	Negative polarity
1	4	osi1608P1-4	osi1608N1-4
2	2	osi1608P2-4	osi1608N2-4
3	1.33	osi1608P3-4	osi1608N3-4
7.5	0.53	osi1608P7.5-4	osi1608N7.5-4

Power supply pin definitions

Signal	Description
Positive power input	+24 VDC to +30 VDC, or +12 VDC to +18 VDC
Negative power input	−12 VDC to −18 VDC
Ground	Ground
Voltage monitor	See voltage-monitor table
+9 VDC reference	+9.0 VDC, maximum 10 mA
Voltage programming input	0–9 VDC = 0–100% rated output; Zin = 100 kΩ
Local voltage programming	Internal programming potentiometer wiper, 0–9 VDC

Typical applications

Photomultiplier tubes; ultrasonic transducers; solid-state detectors.

Outline dimensions

Dimensions in mm.

