osi1628 Series

8–20 kV; 60 W / 125 W; automatic-crossover voltage/current regulation



Product Introduction

The OSIMAI osi1628 high-voltage module provides a form, fit and function replacement for power supplies currently on the market, with more functions and more competitive pricing. It offers better performance, easier system integration and lower cost.

Product Features

- Voltage range 8–20 kV
- Output powers 60 W and 125 W available
- Automatic-crossover voltage/current regulation
- Voltage and current monitor signals
- Arc and short-circuit protection

Specifications

Parameter	Description
Input voltage	24 VDC.
Standard voltage range	23–30 VDC.
Nonstandard voltage range	11–30 VDC.
Input current, typical	Disabled: 40 mA. No load: <600 mA. Full load: 3 A for 60 W; 6.2 A for 125 W.
Voltage regulation	Line <0.01%; load <0.01%.
Current regulation	Line <0.01%; load <0.01%.
Stability	After 0.5-hour warm-up: 0.01% per 8 hours; 0.02% per day.
Accuracy	All programming and monitoring: 2%, except current sensor: 10%.
Temperature coefficient	Voltage and current: better than 100 ppm/°C.
Overshoot	<0.1% Vp.
Ambient temperature	Operating: 0–65°C. Storage: −55–85°C.
Humidity	10–90%, non-condensing.
Dimensions	W 114 × H 27 × D 203 mm.
Weight	0.79 kg.

Power Supply Pin Definitions — First Source Table

Pin	Signal	Description
1	Power ground return	+24 VDC power ground return
2	Positive power input	+24 VDC power input
3	Current sensor	See current-sensor text and table for details
4	Enable input	Low (<0.7 V, Isink 1 mA) = high voltage OFF; high (open or >2 V) = high voltage ON
5	Signal ground	Signal ground
6	Remote voltage adjustment	0 to +4.64 VDC = 0–100%; Zin >1 MΩ
7	+5 V reference output	+5 VDC ±2%; Zout = 475 Ω
8	Power ground return	+24 VDC power ground return
9	Positive power input	+24 VDC power input
10	Identification resistor	Unique identification resistor connected to ground
11	Remote current adjustment	0 to +4.64 VDC = 0–100%; Zin >1 MΩ. Open circuit gives preset current limit of 103% rated output current.
12	Current monitor	0 to +5 VDC = 0–107.5%; Zout <10 kΩ
13	Voltage monitor	0 to +5 VDC = 0–107.5%; Zout <10 kΩ
14	E-output monitor	1.00 V; 1 GΩ / 1.1 MΩ divider; use a 10 MΩ meter

Power Supply Pin Definitions — Second Source Table

Pin	Signal	Description
1	Power ground return	+24 VDC power ground return
2	Positive power input	+24 VDC power input
3	Current sensor	See current-sensor text and table for details
4	Enable input	Low (<0.7 V, Isink 1 mA) = high voltage OFF; high (open or >2 V) = high voltage ON
5	Signal ground	Signal ground
6	Remote adjustment	Positive supply: 0 to +4.64 VDC = 0–100% rated voltage, Zin >1 MΩ. Negative supply: +5 VDC to 0.36 VDC = 0–100% rated voltage, Zin >1 MΩ.
7	+5 V reference output	+5 VDC ±2%; Zout = 475 Ω
8	Power ground return	+24 VDC power ground return
9	Positive power input	+24 VDC power input
10	Identification resistor	Unique identification resistor connected to ground
11	NC	/
12	NC	/
13	NC	/
14	E-output monitor	1.00 V/kV; 1 GΩ / 1.1 MΩ divider; use a 10 MΩ meter

Model Selection (Customizable)

Output kV	Output mA	Positive model	Negative model
8	15.625	osi1628P8-125	osi1628N8-125
10	12.5	osi1628P10-125	osi1628N10-125
20	6.25	osi1628P20-125	osi1628N20-125

Dimensions

