osi1904 Series

150 kV; 5 J; 2 Hz; dedicated deburring supply



Product Introduction

The OSIMAI osi1904 series is a high-performance standard 19-inch rack high-voltage supply for deburring, burn-in and related applications. Digital control supports varied customer requirements, nanosecond arc response ensures fault-free operation, and full-load efficiency exceeds 90%. The fully featured series has a wide output range and supports custom software functions.

Product Features

- Output voltage 1–150 kV
- Maximum energy 5 J
- Operating frequency 2 Hz
- Nanosecond protection response
- Overvoltage, overcurrent, short-circuit, arc and overtemperature protection
- Isolated RS-485 digital communication
- Safety interlock
- Customization available

Specifications

Parameter	Description
Input	220 VAC ±10%, 50/60 Hz; maximum 16 A.
Output	Selectable maximum voltages 1–150 kV; energy per pulse 5 J. Continuously adjustable from zero to maximum voltage; positive or negative single-polarity output.
Front-panel status indication	High voltage ON/OFF, voltage/current indication, overvoltage, overcurrent, short-circuit, arc and overtemperature protection; error-code display.
Voltage control	Integral rotary encoder sets zero to maximum voltage. External 0–10 V analog signal sets zero to maximum output voltage. RS-485 interface using standard Modbus protocol sets zero to maximum voltage.
Current control	Integral rotary encoder sets zero to maximum current. External 0–10 V analog signal sets zero to maximum current. RS-485 interface using standard Modbus protocol sets zero to maximum current.
Voltage regulation	Load: better than 0.01%, no load to rated load. Line: ±0.01% for ±10% input-voltage change.
Current regulation	Load: better than 0.01%, no load to rated load. Line: ±0.01% for ±10% input-voltage change.
Ambient temperature	Operating: 0 to +50°C. Storage: −20 to +80°C.
Temperature coefficient	Voltage and current: better than 100 ppm/°C.
Stability	Less than 0.1% per 8 hours after 0.5-hour warm-up.
Voltage/current indication	Four-digit LED display; accuracy ±1% at rated output.
Dimensions	W 482 × H 178 × D 660 mm.
High-voltage cable	Recessed plastic insulating conduit and inserted high-voltage cable connect through a 16 mm / 28 mm diameter metal connector. Standard cable length 2 m.
Weight	Approximately 46 kg.

Model Selection — 1.2 kW (Customizable)

Output kV	Output mA	Positive model	Negative model
5.00	240.0	osi1904P5-1200	osi1904N5-1200
10.00	120.0	osi1904P10-1200	osi1904N10-1200
20.00	60.0	osi1904P20-1200	osi1904N20-1200
30.00	40.00	osi1904P30-1200	osi1904N30-1200
50.00	24	osi1904P50-1200	osi1904N50-1200
60.00	20	osi1904P60-1200	osi1904N60-1200
100.0	12	osi1904P100-1200	osi1904N100-1200
120.0	10	osi1904P120-1200	osi1904N120-1200
130.0	9.23	osi1904P130-1200	osi1904N130-1200
150.0	8	osi1904P150-1200	osi1904N150-1200

Input Terminals

Mark	Signal
L	Line
N	Neutral
G	Earth
/	/

RS-485 Communication Interface

Mark	Signal
A	RS485+
B	RS485−
G	Earth
/	/

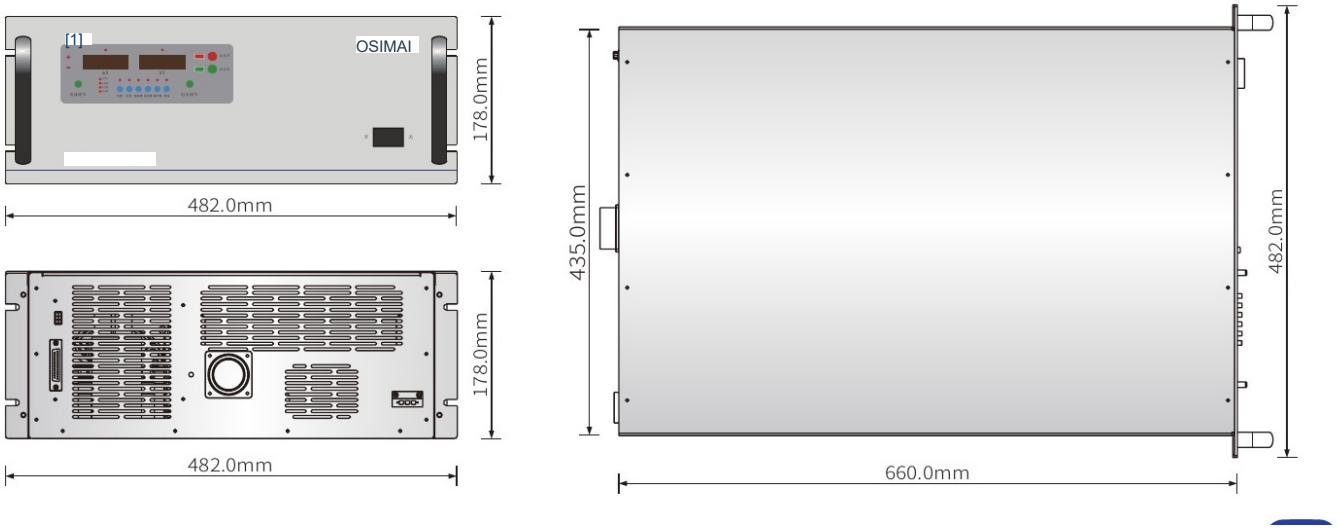
DB25 Connector Signal Definitions

Pin	Signal	Description
1	Remote indication	Open collector; conducting = remote control
2	Constant-voltage indication	Open collector; conducting = constant-voltage output
3	High-voltage OFF indication	Open collector; conducting = high-voltage output OFF
4	High-voltage ON signal	Rising edge = ON; pin 17 at +15 V
5	Remote enable	High (+15 V) = active
6	Safety interlock enable	High (+15 V) = active
7	+15 V	+15 V, 100 mA maximum
8	Current setting	0–10 V = 0–100% rated output
9	Voltage setting	0–10 V = 0–100% rated output
10	+15 V	+15 V, 100 mA maximum
11	+10 V	+10 V, 1 mA maximum
12	Voltage monitor	0–10 V = 0–100% rated output
13	Current monitor	0–10 V = 0–100% rated output
14	Fault indication	Open collector; conducting = power-supply fault
15	Constant-current indication	Open collector; conducting = constant-current output
16	High-voltage ON indication	Open collector; conducting = high-voltage output ON
17	High-voltage OFF signal	Falling edge = high voltage OFF
18	Fault reset	High (+15 V) = reset
19	Ground	Signal ground
20	Ground	Signal ground
21	Ground	Signal ground
22	Ground	Signal ground
23	Ground	Signal ground
24	Ground	Signal ground
25	Ground	Signal ground
Shield	Ground	Signal ground

Typical Applications

Deburring, burn-in and related applications.

Dimensions



[1] osi1904