

TD2110 Series Special High Voltage Power Supply for Burring

150kV, 5J, 2Hz, Burring Application



Teslaman TD2110 series is a high performance 19" standard rack-mounted high voltage power supply. Applicable for burring, aging and other applications. Adopting digital control mode, it can meet the needs of customers for various control functions. Nanosecond arc response capability ensures trouble-free operation of power supply, and full load efficiency reaches over 90%. This series of products have complete functions and wide output range, and can also add custom functions through software.

- Output Voltage 1kV-150kV
- Maximum Energy 5J
- Operating Frequency 2Hz
- Nanosecond Protection Response
- Over-Voltage, Over-Current, Short Circuit, Arc and Over-Temperature Protection
- RS-485 Isolated Digital Communication
- Secure Interlocking Function
- OEM Customization Available

Typical Application:

Burring, electronic component testing, etc.

Specifications:

Input: AC220V \pm 10%, 50/60 Hz, 16A.

Output:

Maximum output voltages could be designed from 1kV to 150kV, with energy of 5J. 0 to the highest voltage is continuously adjustable, and the output is positive or negative single polarity.

Front Panel Status Indication: high-voltage on/off, voltage and current display, over-voltage, over-current, short circuit, arc and over-temperature protection, power supply also has error code display function.

Voltage Control:

Local control: The power supply comes with a rotary encoder to set the output voltage between 0 and the highest voltage.

External analog control: The external 0 to 10V control signal can adjust the output from 0 to the highest output voltage.

Digital communication control: Through RS-485 communication interface, the output can be adjusted from 0 to the highest voltage according to the standard Modbus communication protocol.

Current Control:

Local control: The power supply comes with a rotary encoder to set the output current between 0 and the highest current.

External analog control: The external 0 to 10V control signal can adjust the output from 0 to the maximum current.

Digital communication control: Through RS-485 communication interface, the output can be adjusted from 0 to the maximum current according to the standard Modbus communication protocol.

Voltage Regulation:

Load: 0.01% of output voltage no load to rated load.

Line: \pm 0.01% for \pm 10% change in input voltage.

Current Regulation:

Load: 0.01% of output current from 0 load to rated voltage.

Line: \pm 0.01% for \pm 10% change in input voltage.

Environmental:

Operational: 0 °C to + 50 °C. Storage:-20 °C to + 80 °C.

Temperature Coefficient: 0.01% per °C.

Stability: less than 0.1% every 8 hours after 1/2 hour warm up.

Voltage and Current Indication:

Four-bit LED nixie tube, with an accuracy of 1% under rated output conditions.

Overall Dimensions: 482mm wide, 178 mm high and 660mm deep.

Connector:

Recessed plastic insulated conduit and probed high voltage cable are connected by metal connector with diameter of 16mm/28mm. The standard high voltage cable is 2 meters long.

Weight: 10 to 20kg.

TD2110 Series High Voltage Power Supply Model Selection Table (Customizable):

Output Rating		Type of Power Supply	
kV	mA	Positive Polarity	Negative Polarity
5.00	240.0	TD2110P5-1200	TD2110N5-1200
10.00	120.0	TD2110P10-1200	TD2110N10-1200
20.00	60.0	TD2110P20-1200	TD2110N20-1200
30.00	40.00	TD2110P30-1200	TD2110N30-1200
50.00	24	TD2110P50-1200	TD2110N50-1200
60.00	20	TD2110P60-1200	TD2110N60-1200
100.0	12	TD2110P100-1200	TD2110N100-1200
120.0	10	TD2110P120-1200	TD2110N120-1200
130.0	9.23	TD2110P130-1200	TD2110N130-1200
150.0	8	TD2110P150-1200	TD2110N150-1200

Power input terminal J1:

Pin Position	Signal	Description
1	L	Live Wire
2	N	Null Line
3	G	Ground Wire

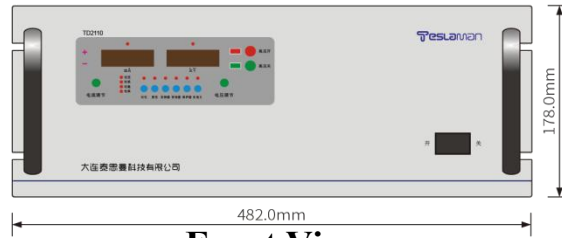
RS-485 Communication Interface J2:

Pin Position	Signal	Description
1	A	RS485 +
2	G	Ground Wire
3	B	RS485-

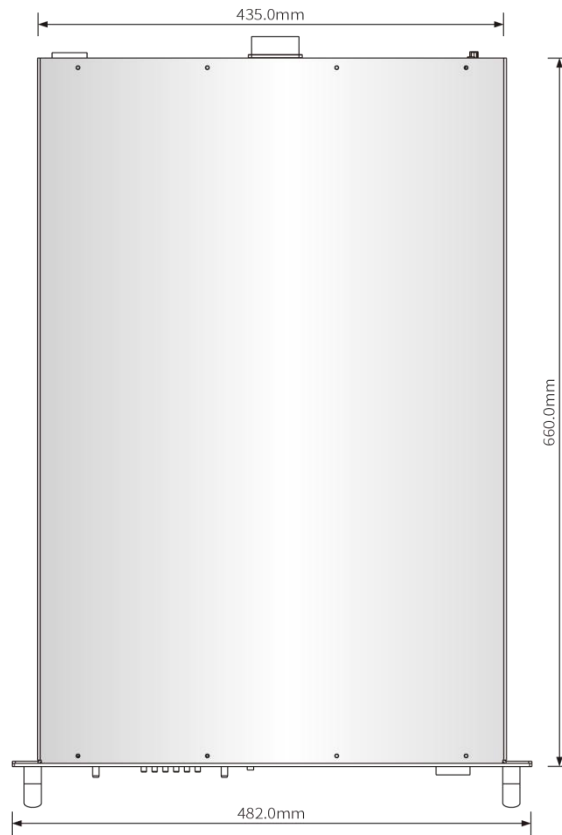
TD2110 Power Supply DB25 Connector Signal Definition J3:

Pin	Signal	Description
1	Remote Indication	Open collector and conduct is remote control
2	Constant Voltage Indication	Open collector, conduction means constant voltage output
3	High Voltage Off Indication	Open the collector and turn it on, that is, turn off the high voltage output
4	High Voltage On Signal	The rising edge opens immediately (+ 15V for 17 feet)
5	Remote Enable	High (+ 15V) is effective
6	Security Lock Enabled	High (+ 15V) is effective
7	+ 15V	+ 15V, 100mA (max)
8	Current Setting	0 to 10V = 0 to 100% rated output
9	Voltage Setting	0 to 10V = 0 to 100% rated output
10	+ 15V	+ 15V, 100mA (max)
11	+ 10V	+ 10V, 1mA (max)
12	Voltage Display	0 to 10V = 0 to 100% rated output
13	Current Display	0 to 10V = 0 to 100% rated output
14	Fault Indication	Open the collector and turn it on, that is, the power supply is faulty
15	Constant Current Indication	Open collector, conduction means constant current output
16	High Pressure On Indication	Open collector, conduction, that is, high voltage output is turned on
17	High Voltage Off Signal	Falling edge is high pressure off
18	Fault Reset	High (+ 15V) is reset
19	Ground	Signal ground wire
20	Ground	Signal ground wire
21	Ground	Signal ground wire
22	Ground	Signal ground wire
23	Ground	Signal ground wire
24	Ground	Signal ground wire
25	Ground	Signal ground wire
Masking	Ground	Signal ground wire

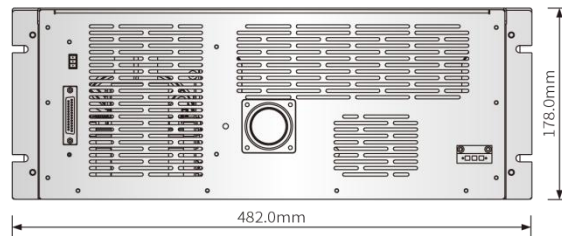
Overall Dimensions: mm



482.0mm
Front View



435.0mm
660.0mm
482.0mm
Top View



482.0mm
178.0mm
Rear View