

TM6030 Series High Voltage Power Supply

High Voltage Power Supply With Output Voltage of 5kV and Maximum Power of 300W



Teslaman TM6030 series is a modular high voltage power supply. Adopting external simulation control and upper computer control, it can meet various functional requirements of customers, and the efficiency is over 90%. This series of products have complete functions and wide output range.

- Output Voltage 5kV
- Output Power 300W
- Nanosecond Protection Response
- Over-Voltage/Over-Current Protection
- OEM Customization Available

Typical Application:

Electrostatic dust removal; Oil fume purification; Capacitor charging; Electrostatic spraying; Electron beam power supply; Accelerator power supply; Ion beam power supply; High energy particle injection, etc.

Specifications:

Input: AC220 \pm 10%, 50/60 Hz.

Output: Voltage 5kV, power 300W.

Voltage Control:

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

Upper computer control: The upper computer controls the output voltage of power supply through RS-232 communication.

Current Control:

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

Upper computer control: The upper computer communicates through RS-232 to control the output current of power supply.

Voltage Regulation:

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

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

Current Regulation:

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

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

Ripple Voltage: < 1% rms.

Environmental:

Operational: 0 to + 50 °C.

Storage: -20 °C to + 80 °C.

Temperature Coefficient: 0.01% per °C.

Stability: less than 0.05% every 8 hours after 1/2 hour warm up.

Overall Dimensions:

The width is 152mm, the height is 120mm and the depth is 304mm.

Weight:

4.2 kg.

High Voltage Connectors:

The recessed plastic insulated conduit and the probed high voltage cable are connected by a metal connector with a diameter of 16mm/20mm. The total length of standard high voltage cable is 2 meters.

Remote Voltage And Current Indication:

The 15-pin terminal contains voltage and current indication signals, and can be externally connected with various digital or pointer meters.

M6030 Series High Voltage Power Supply Model Selection Table (Customizable):

Output Rating		Type of Power Supply	
kV	mA	Positive Polarity	Negative Polarity
3.00	100	TM6030P3-300	TM6030N3-300
5.00	60	TM6030P5-300	TM6030N5-300

RS-232 Communication Interface:

Pin	Signal	Description
1	NC	Connectionless
2	TX out	Send data
3	RX in	Receive data
4	NC	Connectionless
5	SGND	Ground
6	NC	Connectionless
7	NC	Connectionless
8	NC	Connectionless
9	NC	Connectionless

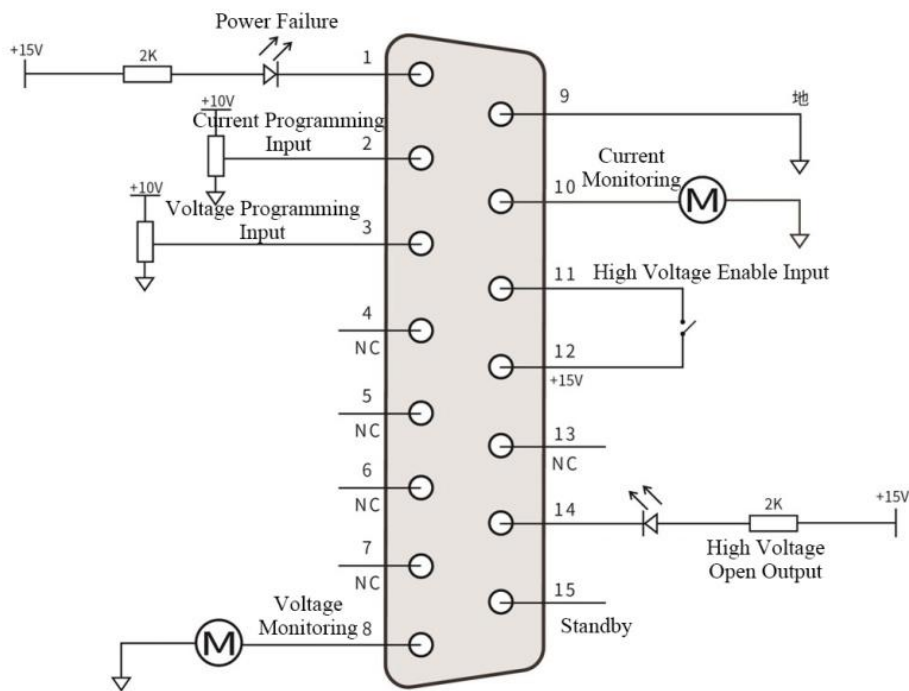
Power input terminal:

Identification	Signal	Identification	Signal	Identification	Signal
L	FireWire	N	Null line	G	Ground wire

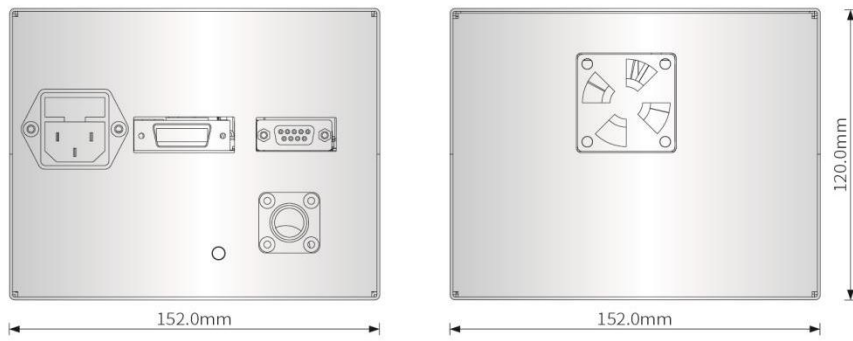
DB15 Connector:

Pin	Signal	Description
1	Power Failure	Open collector, 35V @ max 10mA
2	Current Programming Input	0 to 10V = 0 to 100% rated output, $Z_{in} = 10\text{ M}\Omega$
3	Voltage Programming Input	0 to 10V = 0 to 100% rated output, $Z_{in} = 10\text{ M}\Omega$
4	NC	Connectionless
5	NC	Connectionless
6	NC	Connectionless
7	NC	Connectionless
8	Voltage Monitoring	0 to 10V = 0 to 100% rated output, $Z_{out} = 4.99\text{ k}\Omega$, 1%
9	Signal Ground	Ground
10	Current Monitoring	0 to 10V = 0 to 100% rated output, $Z_{out} = 4.99\text{ k}\Omega$, 1%
11	High Voltage Enable Input	Connect to 12 pins for high voltage activation
12	High Voltage Enable Output	+ 15V @ open, $\leq 15\text{ mA}$ @ closed
13	NC	Connectionless
14	High Voltage Open Output Signal	Open collector, 35V @ max 10mA
15	Standby	Connectionless

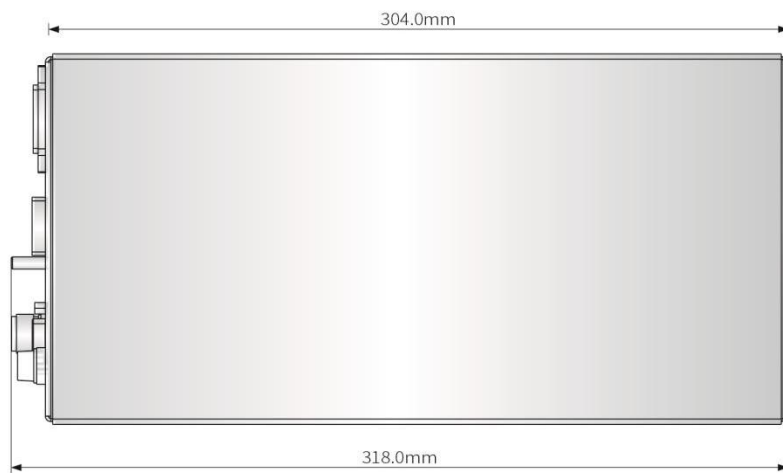
DB15 wiring diagram:



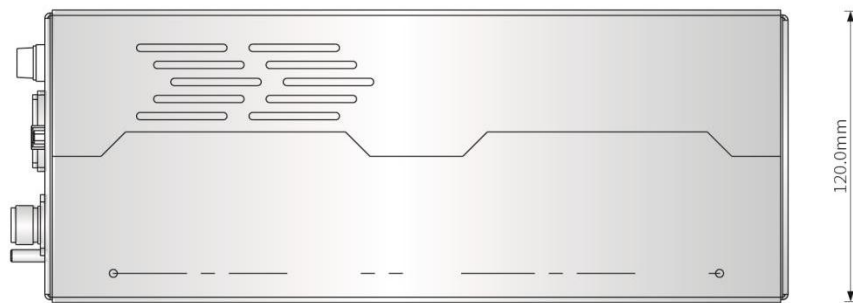
Overall Dimensions: (mm)



Front View & Rear View



Top View



Side View