

# TAC4010 Series

## AC High Voltage Power Supply

5kV-40kV V<sub>p-p</sub>, 1kW, 5kHz-30kHz, center frequency  $\pm 10\%$



Teslaman TAC4010 Series High Voltage AC Power Supply, Output voltage up to  $\pm 20\text{kV}$  sinusoidal wave. The output AC voltage and frequency can be continuously adjusted, and the output AC voltage, frequency and current can be displayed through the front panel digital display meter. In addition, this power supply also has over-voltage and over-current protection function, which makes the performance of the power supply more stable and can well meet the needs of users.

- Output Voltage 5kV-40kV peak to peak
- Output Power 1kW
- Overvoltage, Overcurrent and Short Circuit Protection
- The center frequency is optional from 5kHz to 30kHz, and the center frequency is adjustable by 10%
- Voltage and current regulation function
- Security interlock function
- OEM customization available

### Typical Application:

Ion implantation; Hi-POT test; Plasma; Alternating current electrostatic field; Leakage detection; Withstand voltage test, etc.

### Specifications:

**Input:** AC220V  $\pm 10\%$ , 50Hz.

**Output:** Maximum output voltages could be designed from 5kV to 40kV, and the maximum output power is 1kW. 0 to the highest voltage continuously adjustable.

#### Voltage control:

Local control: The multi-turn potentiometer on the power supply panel can set the output voltage between 0 and the highest voltage.

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

#### Frequency control:

Local control: The multi-turn potentiometer provided by the power supply can set the frequency  $\pm 10\%$  of the center frequency.

External control: The external 0 to 10V control signal can set the frequency  $\pm 10\%$  of the center frequency.

**Center frequency range: 5kHz-30kHz ( $\pm 10\%$  adjustable).**

#### Voltage regulation:

Load: 0.5% of output voltage no load to full load.

Line:  $\pm 0.5\%$  for  $\pm 10\%$  change in input voltage.

#### Current regulation:

Load: 0.5% of output current from 0 to rated voltage.

Line:  $\pm 0.5\%$  for  $\pm 10\%$  change in input voltage.

**Stability:** less than 0.5% every 8 hours after 1/2 hour warm-up.

**Voltage and current indication:** 0 to + 10V, with an accuracy of 1% under rated output conditions.

#### Connectors:

High Voltage Output Connector: Recessed epoxy insulated conduit and probed high voltage cable are connected by a 16mm diameter metal connector. The standard high voltage cable is 1 meter long.

#### Environmental:

Operational: 0 °C to + 50 °C.

Storage: -20 °C to + 80 °C.

**Temperature coefficient:** 0.01% per °C.

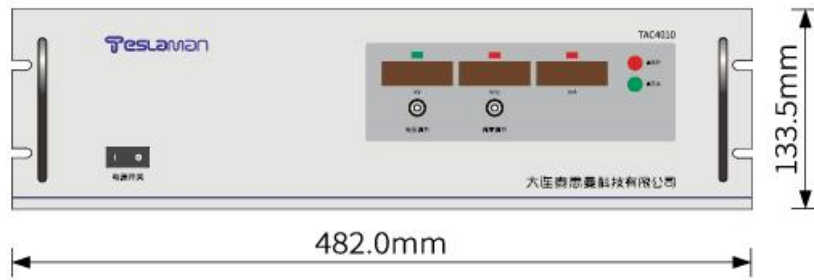
**Overall dimensions:** 482mm wide, 133.5 mm high and 380mm deep.

#### Remote control of output voltage and current:

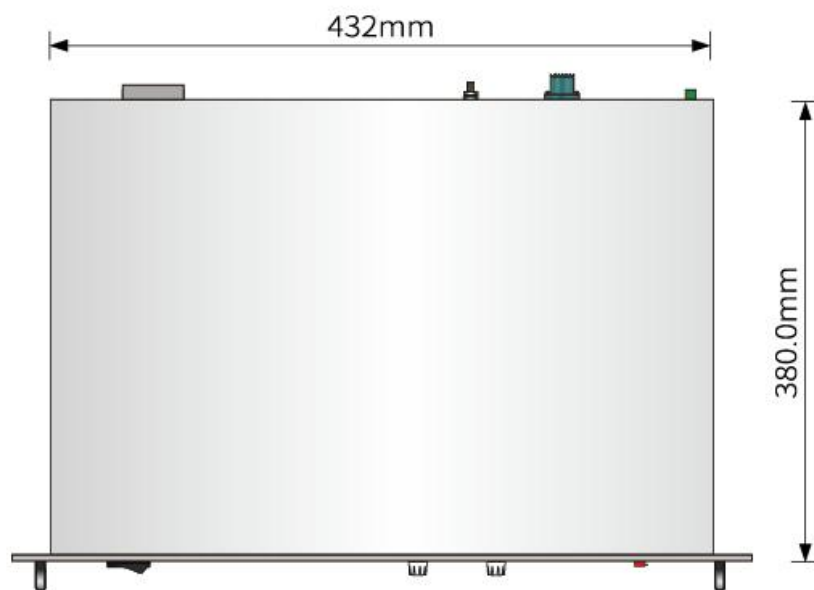
External potentiometer can be used to control the output voltage and current remotely by using 10V reference voltage inside the power supply.

# Overall Dimensions: mm

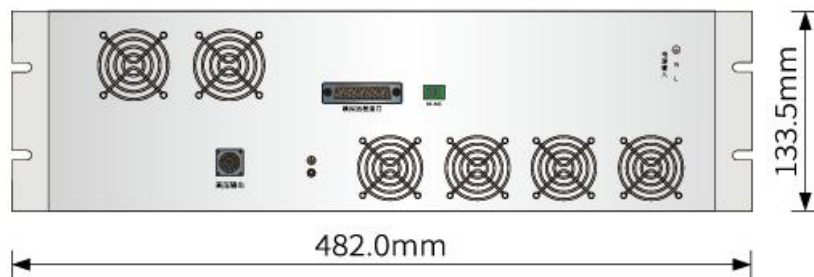
100kV:



Front View



Top View



Rear View