

# TXR1110 series

## High-voltage power supply for X-ray machine

100W,80KV, high precision, integrated filament power supply



Teslaman TXR1110 series high-voltage power supply is a special power supply for X-ray machines, which integrates a filament power supply with an adjustable DC voltage of 5.5V and a current of 0.3A to 3.5A. High voltage and filament current can achieve linear and steady rise. In addition, a biased power supply can make the X-ray focus better and make the imaging clearer. TXR1110 series power supply can also be connected to an external potentiometer to achieve remote control of output voltage and current, and has external voltage and current display, high-voltage output overvoltage and short-circuit protection, safety interlocking and other functions.

- Max Output voltage 80kV
- Integrated adjustable filament power supply
- Overvoltage and output short circuit protection
- Voltage and current regulation function
- Remote control can adjust the emission current
- Safe interlock function
- It can be customized according to user requirements.

### Typical applications:

Liquid level detection; film thickness measurement; PCB board detection;

KeveX, Oxford, RTW, Superior, Varian, Trufocus, Ke Yiwei Equal Negative of the brand Grounded X-ray tube.

### Optional functions:

AC	AC filament power supply
CPC	Constant power output

### Specifications:

**Input:** DC24V±10%.

#### Send out:

A variety of maximum output voltages such as 1kV to 80kV are optional, and 0 to maximum voltages are continuously adjustable.

#### Voltage control:

Inside the power supply:

The multi-turn potentiometer that comes with the power supply can set the output voltage between 0V and the highest voltage.

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

#### Emission current control:

Inside the power supply: The multi-turn potentiometer that comes with the power supply can set the electron beam current to a maximum of 0A.

Electric current.

External remote control: the external 0 to 10V control signal can set the electron beam current to 0A to the maximum

High current.

**DC filament power supply:** The output current is 3.5A adjustable and the voltage is 5.5V.

#### Voltage adjustment rate:

Relative load: 0.01% (no load to rated load).

Relative input: ±0.01% (input voltage change ±10%).

#### Current adjustment rate:

Relative load: 0.01% (no load to rated load).

Relative input: ±0.01% (input voltage change ±10%).

#### Ripple voltage:

Under the condition of output rated voltage, the peak of ripple voltage is 0.1% of the maximum output voltage.

**Ambient temperature:** 0 to +50 at work°C,

Storage time -20°C to +80°C.

**Temperature coefficient:** 0.01% per Celsius.

**Stability:** less than 0.05% every 8 hours after starting up for half an hour.

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

**External dimensions:** 100mm wide, 160mm high and 254mm wide.

**High-voltage electricity Cable:** High-voltage output connector: concave epoxy insulating catheter and probe

The incoming high-voltage cable is connected by a metal connector with a diameter of 16mm. High-voltage cable

The total length is 1 meter.

**Input and output connector:** DB9 contains control signals.

**Remote control of output voltage and current:** The external potentiometer can remotely use the 10V reference voltage inside the power supply to remotely output voltage and current. Control.

**Remote voltage indication:** J4 contains voltage and current indicators from 0V to 10V, which can be connected to various digital or pointer meters.

**TXR1110 series high-voltage power supply model selection table:**

Output rating		Power supply model
kV	mA	Positive polarity
10	10	TXR1110 P10-100
30	3.33	TXR1110 P30-100
50	2	TXR1110 P50-100
80	1.25	TXR1110 P80-100

**Voltage and current control DB9 connector JP5:**

JP5	Signal	JP5	Signal
1	10V reference voltage	6	Current control signal input
2	Ground	7	Current control signal output
3	Voltage control signal input	8	Keep back
4	Voltage control signal output	9	Ground
5	Ground		

**Voltage and current indicator connector JP4:**

JP4	Signal	JP4	Signal
1	Ground	3	Current indicator signal
2	Voltage indicator signal	4	Interlock control

**Filament connector JP3:**

JP3	Signal	JP3	Signal	JP3	Signal
1	Voltage indicator signal	2	Filament power circuit	3	Backup or biased power supply [1]

**24V power connector:**

JP2	Signal	JP2	Signal
1	+24V	3	Ground

**External Dimensions: mm**

