TXMP1006 Series

X-ray power supply | 10kV~30kV，1.5W~20W

- RS-232、RS-485 interface
- High stability, low ripple, low noice
- Integrated ground referenced filament supply
- Voltage and current control
- OV, Arc and short-circuit protection
- Local and remote programming
- OEM customization available

Product Introduction:

Teslaman TXMP1006 is a modular 10kV @ 10W X-Ray generator designed to drive a grounded filament X-Ray tube via closed loop filamentary control of the 0 to 1mA emission current. The grounded filament supply is rated at 0-5 amps @ 3Vdc. The filament supply features an internally adjustable 0.5 to 2.5 amp filament preheat and a internally adjustable 0 to 5 amp filament limit.

Typical Applications:

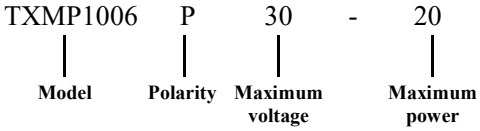
RoHS analyzer; fluorescence analysis; liquid level detection; film/metal thickness measurement; PCB board inspection; other imaging and X-ray inspection occasions; AI recognition; can be adapted to various cathode grounded X-ray tube

Specifications:

Input	DC24V±10%， 2 amp maximum。
Output	Rated voltage of 10kV，20kV，30kV.
Stability	Less than 0.007%/hour, less than 0.02%/8 hour, after 0.5 hour warm-up.
Temperature Coefficient	<25ppm/°C.
Ripple	Less than 0.005%p-p under rated output condition.
Voltage Accuracy	<2%
Emission Current	0-1mA
Current Accuracy	<1% (above 10% of maximum output current)
Current Stability	< 0.02%
Filament Output	A captive 500mm long unterminated 16 AWG twisted wire pair is provided.
Voltage Regulation	Line: <0.01% for input voltage change of ±10%
	Load: <0.01% for zero to full load
Current Regulation	Line: ≤0.01% for 10% input voltage change under any load conditions
	Load: ≤0.01% for full load to short circuit
Filament Supply	Voltage: 0V to 3Vdc referenced to ground Load Current: 5A max, preset adjustable limit Stability: < 0.25% per 8 hours at constant operating conditions Ripple: <50mV p-p (at maximum load current). Temperature Coefficient: <300ppm/°C
Environmental	Operating: 5°C to 40°C Storage: -40°C to 70°C
Humidity	Operating: 20% to 80% RH, non-condensing Storage: 5% to 95%
Dimensions	0kV to 10kV:W70mm，H30mm，D160mm。 20kV to 30kV:W70mm，H30mm，D200mm。

Description of Model Code

The model code represents the performance and parameters of the power supply, which are:
Maximum output voltage in kV;
Maximum output power in W;
Output polarity, P for positive output;



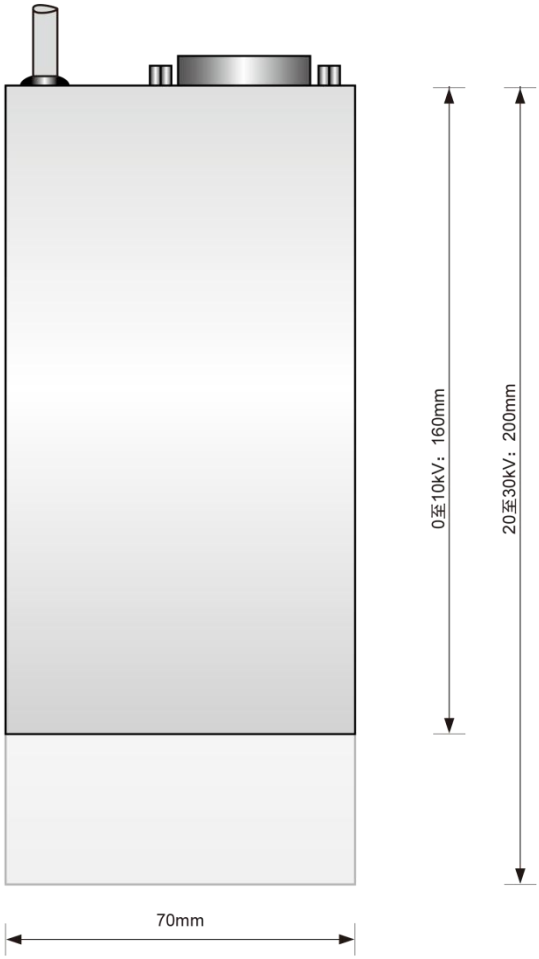
TXMP1006 SERIES MODEL SELECTION TABLE（CUSTOMIZABLE）:

Rated Value		Model
kV	mA	Positive
10	0.5	TXMP1006P10-5
10	1.0	TXMP1006P10-10
10	2.0	TXMP1006P10-20
20	0.25	TXMP1006P10-5
20	0.5	TXMP1006P10-10
20	1.0	TXMP1006P10-20
30	0.17	TXMP1006P10-5
30	0.33	TXMP1006P10-10
30	0.67	TXMP1006P10-20

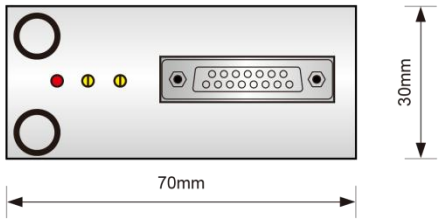
TXMP1006 DB15 PIN MALE D CONNECTOR:

PIN	Signal	Signal Parameters
1	+24Vdc	+24Vdc
2	Ground	Ground
3	Preheat (set value)	Preheat (set value)
4	Test (Filament Current	Test (Filament Current
5	HV Enable	HV Enable
6	Filament Stable	Filament Stable
7	HV Program Output	HV Program Output
8	HV Program Input	HV Program Input
9	High Voltage Monitor	High Voltage Monitor
10	Emission Current Monitor	Emission Current Monitor
11	Filament Current Monitor	Filament Current Monitor
12	Emission Current Program Input	0-10Vdc = 0-1mA, Zin = 1MΩ accuracy ±3% of full scale
13	Emission Current Program Output	0-10Vdc from Internal Preset
14	Ground	Ground
15	Preset Max. Filament	Preset Max. Filament

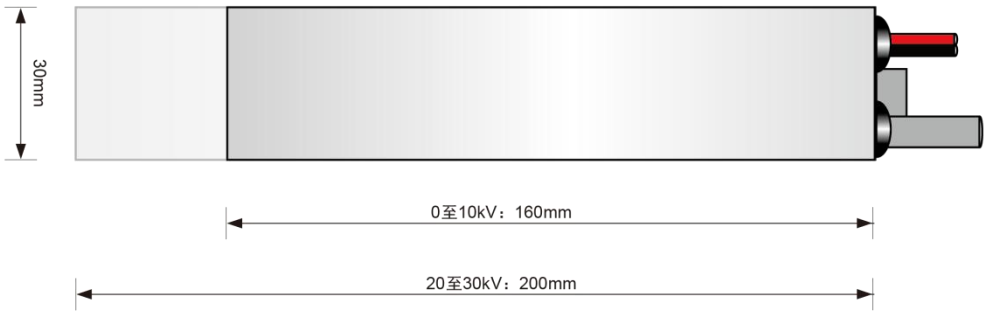
Dimensions: mm



Top View



Front View



Side View