



TPTV6090 Series Modular high voltage power supply

70kV, 200W/350W, high stability, low ripple and low noise



- ◆ Output voltage from 1kV to 70kV
- ◆ Over-voltage and short circuit protection
- ◆ EMI/RFI input filtering
- ◆ Test points for output current and voltage
- ◆ Internal 10V reference
- ◆ Disable control through TTL signal output
- ◆ Provide OEM customization

Teslaman TPTV6090 Series Modular High Voltage Power Supply provides up to 350W continuous power. Resonant inverter design provides over 80% efficiency and has very fast dynamic response. The TPTV6090 power supply contains a wide range of standard features in two power output ranges (200W and 350W) and has a wide output voltage range allowing it to operate in the most stringent specifications.

Typical application:

Projection TV; X-ray system; Electron beam system; Capacitor charging system; CPT/CRT test.

Specifications:

Enter:

200W: 115VAC \pm 10%, 2.5 A, 50/60 Hz.

350W: 115VAC \pm 10%, 4.3 A, 50/60 Hz.

200W: 220VAC \pm 10%, 1.3 A, 50/60 Hz.

350W: 220VAC \pm 10%, 2.2 A, 50/60 Hz.

Optional:

200W: 110VAC \pm 10%, 2.8 A, 50/60 Hz.

350W: 110VAC \pm 10%, 4.9 A, 50/60 Hz.

Specify the input voltage when ordering.

Output: Models range from 1kV to 70kV, 200W or 350W. Positive or negative polarity output is available for each model.

Voltage regulation:

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

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

Current regulation:

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

Line: 0.01% of rated current in the specified input range.

Efficiency: Typical 80%.

Ripple:

200: 0.1% p-p of the output voltage.

350: 0.2% p-p of the output voltage.

Switching frequency: 45-65kHz.

Environmental:

Working temperature: 0 °C to + 40 °C.

Storage temperature: -40 °C to + 85 °C.

Voltage temperature coefficient: 0.01%/°C.

Stability (voltage and current): 0.01%/hour after 0.5 hours of preheating. 0.02% every 8 hours.

Cooling:

200W: Convective cooling.

350W: Fan cooling, rear air intake.

Dimensions:

1-40kV: 273mm wide, 81mm high and 254mm deep.

50-70kV: 276mm wide, 106.5 mm high and 351mm deep.

High voltage output: Suspended lead 457mm, UL has been registered.

AMPLGHI connectors are available only for 40kV.

Power input connector: IEC320.

AC voltage input cable:

Length: 2.4 m.

Compliance certification:

Comply with EEC EMC instructions and EEC low voltage instructions.

UL/CUL Certification, File E148969 (up to 5kV only). RoHS compliant.



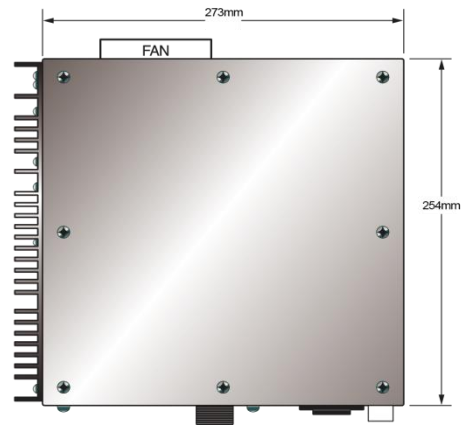
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TPTV6090 Series High Voltage Power Supply Model Selection Table (Customizable):

Output rating		Type of power supply	
KV	MA	Positive polarity	Negative polarity
1	350	TPTV6090P1-350	TPTV6090N1-350
10	35	TPTV6090P10-350	TPTV6090N10-350
20	17.5	TPTV6090P20-350	TPTV6090N20-350
30	11.67	TPTV6090P30-350	TPTV6090N30-350
50	7	TPTV6090P50-350	TPTV6090N50-350
60	5.83	TPTV6090P60-350	TPTV6090N60-350
70	5	TPTV6090P70-350	TPTV6090N70-350

Overall Dimensions:mm



Interface connector 9 pins:

Stitch	Signal	Description
1	+ 10VDC Reference	+ 10VDC, max 1mA
2	Current programming	0 to 10VDC = 0 to 100% rated output, $Z_{in} = 10\text{ M}\Omega$.
3	Voltage monitoring	0 to 10VDC = 0 to 100% output rating, $Z_{out} = 10\text{ k}\Omega$.
4	Voltage programming	0 to 10VDC = 0 to 100% rated output, $Z_{in} = 10\text{ M}\Omega$.
5	Commons	Power source ground
6	Current monitoring	0 to 10VDC = 0 to 100% output rating, $Z_{out} = 10\text{ k}\Omega$.
7	Enable/Disable	Ground = disabled, open = high voltage open.
8	OVP indicator	The collector is connected to + 5VDC through a 1 k Ω resistor, and the transistor is on = OVP
9	Signal return	Signal return