

# TMX6112 Series

## Polarity Reversible Module

### HV Power Supply

10kV/20kV Rated Output, 2W, Low Ripple



Teslaman TMX6112 is a well-regulated high performance DC-DC converter featuring a “hot switchable” polarity reversal capability. A HV inhibit feature, along with voltage and current monitors are provided. Easily customized to meet OEM requirements, the TMX6112 can be provided with current control, improved ripple performance and higher voltage and current capabilities.

- Hot Switchable Polarity Reversible Via a Logic Signal
- Well Regulated, Low Ripple
- Polarity Reversal Within 500ms
- Voltage and Current Monitor Outputs
- Remote HV Inhibit
- Flying High Voltage Output Cable
- Current Control Option

#### TYPICAL APPLICATIONS:

Mass Spectrometry  
Capillary Electrophoresis  
Electrostatic Printing

#### OPTIONS VCC:

Variable Current Control

#### Specifications:

**Input Voltage:** +24Vdc,  $\pm 1.2$  V.

#### Input Current:

<500mA continuous

<1.2A during reversing

**Output Voltage:**  $\pm 500$ Vdc to  $\pm 20$ kV.

**Output Current:** 0 to 100 $\mu$ A max.

#### Polarity:

Remotely reversible via logic signal, 500ms to settle to  $\pm 2\%$ , 1 Hz maximum switch rate.

#### Voltage Regulation:

Load: 0.02% of maximum output voltage for a no load to full load change.

Line: 0.01% of maximum output voltage for a 1 volt input line change.

#### Current Regulation: (VCC Option)

Load: 0.1% of maximum rated current for a 0 to 100% voltage change.

Line: 0.01% of maximum rated current for a 1 volt input line change.

**Voltage/Current Programming::** 0 to 10 volts corresponds to 0 to 100% of rated output voltage/current.

**Voltage/Current Monitor :** 0 to 10 volts corresponds to 0 to 100% of rated output voltage/current.

#### Programming and Monitor Accuracy:

$\pm 2\%$  Voltage Programming/Monitor  $\pm 5\%$  Current Programming/Monitor.

**Ripple:**  $\leq 25$ ppm.

**Stability:** 0.05% every 8 hours after 0.5 hour warmup.

**Temperature Coefficient:**  $\leq 100$ ppm per degree C

#### Environmental:

Operating: 0°C to 40°C Storage: -40°C to 85°C

**Humidity:** 10% to 90%, non-condensing.

**Cooling:** Convection Cooling.

**Dimensions:** H52mm \* W168mm \* D165mm.

**Weight:** Approximately 2.5 kg.

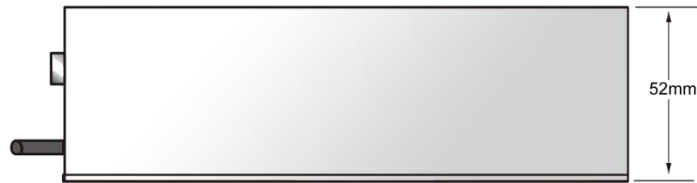
**Interface/Power Connector:** 9 pin male D connector.

**HV Cable:** non-detachable, with shield, 1m.

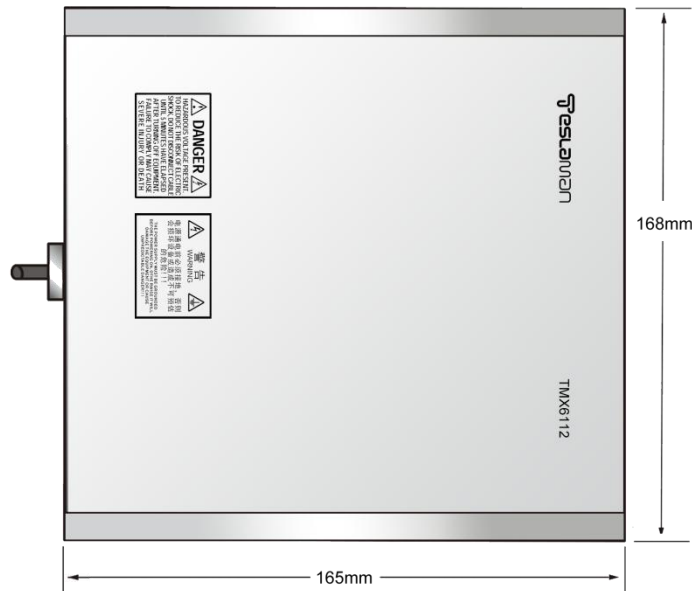
**TERMINAL BLOCK 9 PIN:**

PIN	SIGNAL	SIGNAL PARAMETERS
1	Voltage Monitor	0-10V=0-100% of Rated Output
2	External Inhibit Input	Open or >10V="OFF"; <4V="ON"
3	Current Programming Input	0-10Vdc =0-100% of Rated Output(on VCC Option)
4	Signal Ground	Signal Ground
5	Current Monitor	0-10Vdc=0-100% of Rated Output
6	Polarity Control Input	Open or >10V ="Negative"; <4V ="Positive"
7	Voltage Programming Input	0-10Vdc =0-100% of Rated Output
8	+24V Input	+24V Input
9	Power Ground	Power Ground

**Dimensions: mm**



**Side View**



**Top View**