

# TMM6138 series

## Ultra-low ripple precision high-voltage power supply

100V~2kV, 0.5W~2W



Telsaman TMM6138 series is A micro-module high-voltage power supply, its output voltage range from 100V to 2kV, and the output power is 0.5W~2W. This power supply features miniaturization design, ultra-low noise 10ppm, high stability 10ppm/hour, ultra-low temperature coefficient 10ppm/°C, as well as six-sided shielding and other features. Besides all models of this power supply adopt external potentiometer or external reference voltage function, And provided display , Arc ,Short circuit and overload protection And other functions.

- High stability 10ppm/hour
- Ultra-low noise 10ppm
- Ultra-low temperature drift 10ppm/°C
- Six-sided shielding
- External potentiometer or external voltage control
- It can be customized according to user requirements.

### Typical applications:

Mass spectrometry, photomultiplier tube, micro-channel plate, proportional counting tube, Geiger tube, avalanche photodiode, solid-state detector, ionization chamber, gas chromatography, electronic multiplier detector, nuclear instrument, electrophoresis, DNA sequencing, radiation counter, electron beam, ion beam, high-voltage bias, voltage resistance test, precision lens image Enhancer, semiconductor test, electrostatic discharge test ESD, pulse power supply, capacitance discharge, life science, medical chemistry, scientific experiment, industrial application.

### Specification:

**Input:** +24VDC  $\pm 2\%$ , The input current is 350mA.

**Output:**

0.1kV, 0.2kV, 0.5kV, 1kV, 1.5kV, 2kV, a variety of high voltage outputs are available.

**Stability:** After starting up for 0.5 hours, the hour is less than 0.001%.

**Temperature coefficient:** Voltage and current are better than 10ppm/°C.

**Ripple:** Under rated output conditions, it is better than 10ppm (p-p).

**Voltage control:**

External 20 k $\Omega$  potentiometer or external control voltage (Vp-in) 0~+5Vdc, Zin=100k $\Omega$

**Voltage display:**

0~+5Vdc equivalent to 0 to 100% rated output, Zout=20 k $\Omega$ , accuracy:  $\pm 1\%$ .

**Voltage linear adjustment rate:**  $\pm 0.001\%$  (input voltage change +2%).

**Voltage load adjustment rate:**  $\pm 0.01\%$  (no load to rated load).

**Ambient temperature:** Operational: 0°C~+50°C. Storage: -40°C~+85°C.

**Humidity:** 0%~90% relative humidity, no condensation.

**Cooling method:** Convection cooling.

**External dimensions:** Width 12.3mm, height 25.4mm, depth 40.64mm.

**Weight:** About 25g.

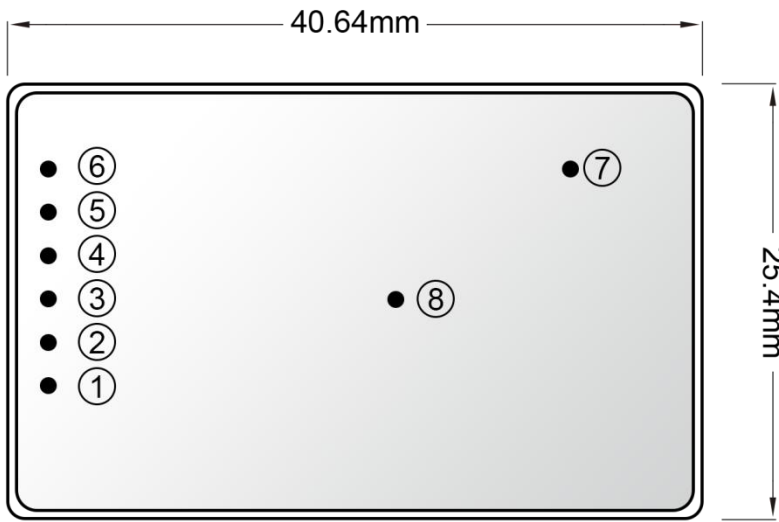
**TMM6138 series high-voltage power supply model selection table (customizable):**

Output rating		Power supply model	
kV	MA	Positive polarity	Negative polarity
0.1	5	TMM6138P0.1-0.5	TMM6138N0.1-0.5
	Ten	TMM6138P0.1-1	TMM6138N0.1-1
	20	TMM6138P0.1-2	TMM6138N0.1-2
0.2	2.5	TMM6138P0.2-0.5	TMM6138N0.2-0.5
	5	TMM6138P0.2-1	TMM6138N0.2-1
	Ten	TMM6138P0.2-2	TMM6138N0.2-2
0.5	1	TMM6138P0.5-0.5	TMM6138N0.5-0.5
	2	TMM6138P0.5-1	TMM6138N0.5-1
	4	TMM6138P0.5-2	TMM6138N0.5-2
1	0.5	TMM6138P1-0.5	TMM6138N1-0.5
	1	TMM6138P1-1	TMM6138N1-1
	2	TMM6138P1-2	TMM6138N1-2
1.5	0.33	TMM6138P1.5-0.5	TMM6138N1.5-0.5
	0.67	TMM6138P1.5-1	TMM6138N1.5-1
	1.33	TMM6138P1.5-2	TMM6138N1.5-2
2	0.25	TMM6138P2-0.5	TMM6138N2-0.5
	0.5	TMM6138P2-1	TMM6138N2-1
	1	TMM6138P2-2	TMM6138N2-2

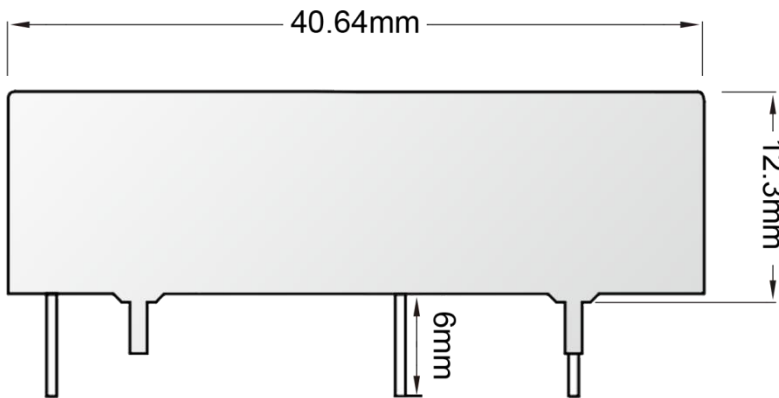
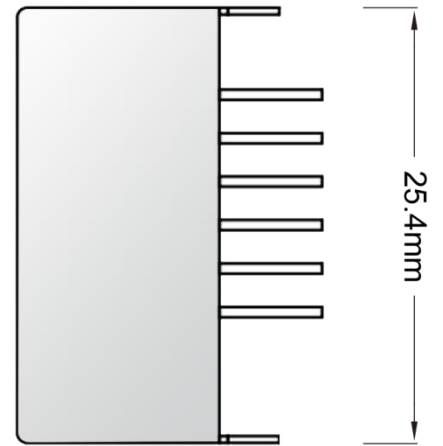
**Definition of TMM6138 power pin:**

Pin	Describe
1	Power input, +12Vdc±2%, optional +24Vdc±2%, +15Vdc±2%, +5Vdc±2%
2	Power supply ground
3	0~+5Vdc corresponds to 0~100% rated output, Z <sub>in</sub> =100kΩ
4	Reference voltage +5Vdc
5	Low-level startup (ON=GND,OFF=OPEN)
6	Voltage display, 0~+5Vdc corresponds to 0~100% rated output, Z <sub>out</sub> =20kΩ
7	High-voltage output
8	High voltage ground

**Overall dimension: mm**



Bottom view



Side view