

# TMM6154 series

## Ultra-low ripple precision high voltage power supply

0.3kV~3kV, 1W~5W



Teslaman TMM6154 series is a micro-module high-voltage power supply with output voltage ranging from 0.3kV~3kV to 3 kV and output power ranging from 1W~5W to 5 W. The power supply features miniaturization design, ultra-low noise of 10ppm, high stability of 10ppm/ hour, ultra-low temperature coefficient of 10ppm/°C and six-sided shielding. In addition, all models of the power supply provide the external potentiometer or external reference voltage control, and provide functions such as display, arc, short circuit and overload protection.

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

### Typical application:

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

### Specification:

Input: +24VDC  $\pm$  2%, input current 500mA.

Output: 0.3kV, 0.5kV, 1kV, 1.25kV, 1.5kV, 2kV, 2.5kV, 3kV and variety of high voltage outputs are optional.

Stability: less than 0.001% per hour after 0.5 hours of startup.

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

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

#### External voltage control:

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

#### Voltage display:

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

#### Voltage linear regulation rate:

$\pm$  0.001% (input voltage changes by  $\pm$  2%).

#### Voltage load regulation rate:

$\pm$  0.01% (no-load to rated load).

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

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

**Cooling:** Convection cooling.

**Overall dimensions:** width 17mm, height 40mm and depth 60mm.

**Weight:** about 65g.

**TMM6154 series high-voltage power supply model**

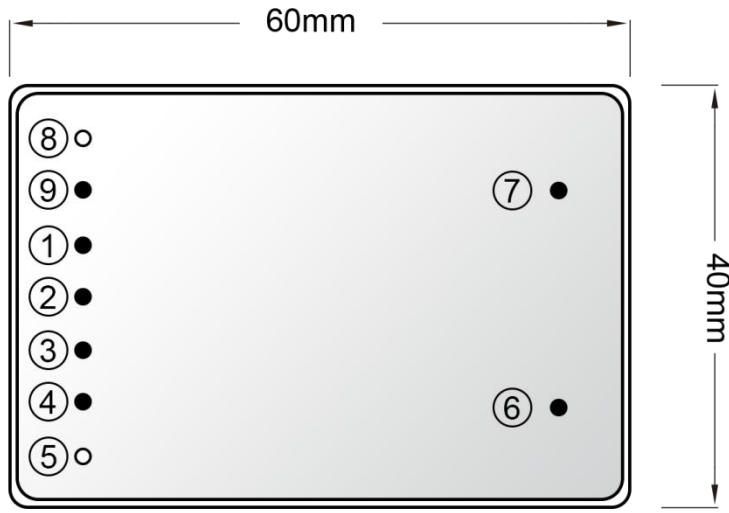
Output rating		Power supply model	
kV	mA	positive polarity	negative polarity
0.3	3.3	TMM6154P0.3-1	TMM6154N0.3-1
	6.7	TMM6154P0.3-2	TMM6154N0.3-2
	10	TMM6154P0.3-3	TMM6154N0.3-3
	13	TMM6154P0.3-4	TMM6154N0.3-4
	16.7	TMM6154P0.3-5	TMM6154N0.3-5
0.5	2	TMM6154P0.5-1	TMM6154N0.5-1
	4	TMM6154P0.5-2	TMM6154N0.5-2
	6	TMM6154P0.5-3	TMM6154N0.5-3
	8	TMM6154P0.5-4	TMM6154N0.5-4
	10	TMM6154P0.5-5	TMM6154N0.5-5
1	1	TMM6154P1-1	TMM6154N1-1
	2	TMM6154P1-2	TMM6154N1-2
	3	TMM6154P1-3	TMM6154N1-3
	5	TMM6154P1-4	TMM6154N1-4
	5	TMM6154P1-5	TMM6154N1-5
1.25	0.8	TMM6154P1.25-1	TMM6154N1.25-1
	1.6	TMM6154P1.25-2	TMM6154N1.25-2
	2.4	TMM6154P1.25-3	TMM6154N1.25-3
	3.2	TMM6154P1.25-4	TMM6154N1.25-4
	4	TMM6154P1.25-5	TMM6154N1.25-5
1.5	0.67	TMM6154P1.5-1	TMM6154N1.5-1
	1.33	TMM6154P1.5-2	TMM6154N1.5-2
	2	TMM6154P1.5-3	TMM6154N1.5-3
	2.67	TMM6154P1.5-4	TMM6154N1.5-4
	3.33	TMM6154P1.5-5	TMM6154N1.5-5
2	0.5	TMM6154P2-1	TMM6154N2-1
	1	TMM6154P2-2	TMM6154N2-2
	1.5	TMM6154P2-2	TMM6154N2-2
	2	TMM6154P2-4	TMM6154N2-4
	2.5	TMM6154P2-5	TMM6154N2-5
2.5	0.4	TMM6154P2.5-1	TMM6154N2.5-1
	0.8	TMM6154P2.5-2	TMM6154N2.5-2
	1.2	TMM6154P2.5-3	TMM6154N2.5-3
	1.6	TMM6154P2.5-4	TMM6154N2.5-4
	2	TMM6154P2.5-5	TMM6154N2.5-5
3	0.33	TMM6154P3-1	TMM6154N3-1
	0.67	TMM6154P3-2	TMM6154N3-2
	1	TMM6154P3-3	TMM6154N3-3
	1.33	TMM6154P3-4	TMM6154N3-4
	1.67	TMM6154P3-5	TMM6154N3-5

**selection table (customizable):**

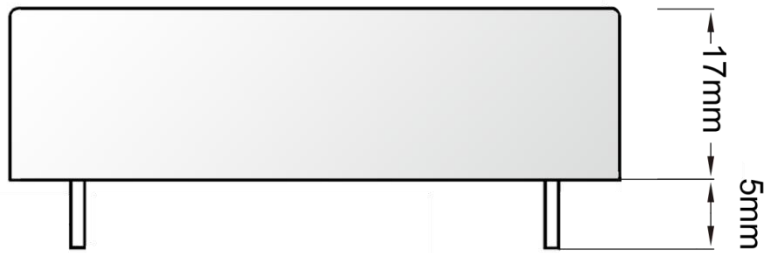
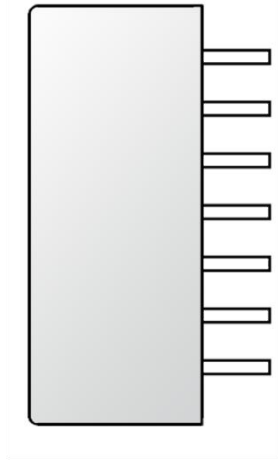
**TMM6154 power pin definition:**

pin	describe
1	Power input+24 VDC 2%. Optional+12vdc 2%,+15vdc 2% input.
2	Power/signal ground
3	Given the voltage, 0~+5Vdc corresponds to 0-100% rated output, and Zin=100kΩ.
4	Reference voltage +5Vdc
5	Low level start (ON=GND,OFF=OPEN)
6	High voltage output
7	High pressure
8	Current display shows that 0~+5Vdc corresponds to 0-100% rated output current, and Zout =20kΩ.
9	Voltage display, 0~+5Vdc corresponds to 0-100% rated output voltage, Zout =20kΩ.

**Overall dimensions: mm**



bottom view



side view