

Chapter 1 Introduction

TMI6102 Series

Module High Voltage Power Supply | Floating Ground 2.2kV,80W,1U Height



- 0~10V Analog communication signal
- Enable 1.4V High Voltage on
- Current monitoring 0-7.5VDC
- Control accuracy: $\pm 1\%$, 30%~100% of rated output

Product introduction:

The TMI6102 series power supplies features a floating ground design with a 24VDC input, capable of delivering a maximum output voltage of up to 2.2kV and stably providing up to 80W of power. They come in a metal enclosure that offers excellent shielding. Additionally, the TSM6102 series power supplies can be set and monitored for output voltage via remote control. These modules are easy to customize, allowing for improvements in ripple performance and enhanced reliability to meet the needs of various OEM customers.

Typical Application:

Microchannel plate detector; Electron multiplier; Channel electron multiplier.

Specifications:

Input	DC24V ± 0.5
Output	+500V ~ +2.2kV Adjustable
Ripple	Less than 1%p-p under rated output.
Environmental	Operational: 15°C ~ +50°C . Storage: -40°C ~ 70°C.
Voltage regulation	Load: 0.01% (Zero to full load). Line: $\pm 0.01\%$ (For line change of $\pm 10\%$).
Current regulation	Load: 0.01% (Zero to full load). Line: $\pm 0.01\%$ (For line change of $\pm 10\%$).
Voltage Program	0 to 10V = 0 to 100% of rated output voltage
Voltage Monitor	0 to 10V = 0 to 100% of rated output voltage
Stability	≤ 1000 ppm/Hour after 1 hour warm-up
Temp. Coefficient	Less than 300ppm/°C.
Humidity	5% to 95%, non-condensing.
Cooling	Convection
Dimensions	W120mm, H45mm, D163mm.
Weight	0.6kg
Connector	32 pins male connector
HV output cable	Positive HV (Red) : Floating wire, HV cable Negative HV (Black) : Floating wire, HV cable

Model number description

Model number present the parameters and properties:

Max output voltage, unit: kV;

Max output power, unit: W;

Polarity,P for positive,N for negative;

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Model Digital interface Polarity Max voltage Max power

TMI6102 Interface definition:

Pin	Parameters
a1-a5,b1- b5	+24VDC Input
a6-a10,b6-b10	Input ground
a11,b11	Analog ground
a12,b12	V.Control-
a13,b13	V.Control+
a14,b14	V. Monitor
a15,b15	I.Monitor
a16,b16	On/off(Enable) >1.4V HV on

Dimensions:mm

