TMS6400 series

Modular high voltage power supply

30kV, 10W, ripple ≤2ppm

Teslaman MS6400 series high-voltage power supply module is a high-stability precision high-voltage power supply module. The maximum output voltage is 1kV~30kV, and the power is 5W~10W.Stability 10ppm/1H,10ppm/8H,10ppm/1000H, ripple ≤2ppm, no micro-discharge. The temperature coefficient is 10ppm. It is mainly used in the fields of mass spectrometer and electron microscope. The high voltage output of TMS6400 series power supply has the functions of overvoltage, arc, short circuit protection and safety interlock. Standard network port, RS-232, optional RS-485 digital interface, this series of high-stability precision module high-voltage power supply is an ideal choice for OEM.

- 1kV~30kV,5W~10W optional.
- Stability 10ppm/1H,20ppm/8H, 100ppm/1000H.
- Ripple ≤2ppm, no micro-discharge.
- Temperature coefficient 10ppm
- Network port, RS-232 and optional RS-485 control
- Overvoltage, arc and continuous short circuit protection
- Six-sided shielding of metal shell has strong anti-interference.
- Can be customized according to user requirements.

Typical application:
Scanning electron microscope, scanning electron microscope for characteristic size measurement, high resolution length measuring instrument, mass spectrometer, electron beam, ion beam, flat panel detector.

Specification:

Input:+24 VDC 10%, maximum current 1.5A.
Output: 1kV~30kV maximum voltage output is optional. 5W~10W output power is optional.
Stability: 0.001%/1H, 0.002%/8H and 0.01%/1000H after half an hour of startup.
Temperature coefficient: voltage and current are better than 10ppm/℃.
Ripple: under rated output conditions, it is better than 2ppm(p-p).
Voltage and current display:
0~+10VDC corresponds to 0~100% rated output, with accuracy of 1%.
Internal control of output voltage: internal potentiometer sets the voltage to 0~100% rated output.
External control of output voltage: external 0~+10VDC control signal can set the voltage at 0~100% rated output.
Internal control of output current: the internal potentiometer sets the current to 0~100% rated output.
External control of output current: external 0~+10VDC control signal can set the current at 0~100% rated output.
Voltage relative load regulation rate: 0.001% (no-load to rated load).
Voltage relative input regulation rate: 0.001% (input voltage changes by 10%).
Current relative load adjustment rate: 0.001% (no-load to rated load).
Current relative input regulation rate: 0.001% (input voltage changes by 10%).
Ambient temperature: at work: 0℃~+50℃. Storage: -35℃~+85℃.
Cooling: natural cooling.
Humidity: 20%~85% relative humidity, no condensation.
Overall dimensions: 65mm high, 115mm wide and 150mm deep.
Weight: about 1.55kg.

TMS6400 power input/filament output interface:

J4	Port information	
1	+24VDC input	+24VDC±10% maximum current is 5.0A
2	+24VDC ground	Ground

TMS6400 analog port:

J4	Port information	
1	+10VDC reference	+10VDC reference voltage
2	Voltage display	0~+10VDC=0~100% rated output, Zout=10kW.
3	Voltage remote control input	0~+10VDC=0~100% rated output, Zin=10MW.
4	Voltage local control output	0~+10VDC, potentiometer adjustment
5	Current display	0~+10VDC=0~100% rated output, Zout=10kW.
6	Current remote control input	0~+10VDC=0~100% rated output, Zin=10MW.
7	Current local control output	0~+10VDC, potentiometer adjustment
8	External interlock	Grounding = high voltage on
9	Interlocking return	Ground

RS-232/RS-485 digital port:

J3	Port information	J3	Port information
1	Spare	6	Spare
2	TXD/ send data	7	RS-485B
3	RXD/ received data	8	Spare
4	Spare	9	RS-485A

USB digital port:

	Port information			Port information	
1	RX+	Received data+	5	Spare	Spare
2	RX-	Receiving data-	6	TX-	Send data-
3	TX+	Send data+	7	Spare	Spare
4	Spare	Spare	8	Spare	Spare

Overall dimensions: mm