



- OUTPUT VOLTAGE 0~±7.5kVdc or PEAK AC
- OUTPUT CURRENT 0~±50mAdc or 160mA PEAK AC
- REVERSE RATE 1000V/μs
- SIGNAL BANDWIDTH: DC to 15kHz
- DC VOLTAGE GAIN: 750V/V
- IN-PHASE PROPORTIONAL AMPLIFIER
- FOUR-QUADRANT OUTPUT FOR DRIVING CAPACITIVE LOAD
- CLOSED-LOOP SYSTEM, LOW NOISE, HIGH ACCURACY
- SHORT CIRCUIT PROTECTION FUNCTION
- CAN BE USED as DC POWER SUPPLY

INTRODUCTION

Wisman AML series is a high stability, high power high voltage amplifier power supply for industrial and scientific applications. AML series is a solid state design with high slew rate, wide bandwidth and low noise. Four quadrant power supply, suitable for reactive or resistive load. AML is an in-phase amplifier with an amplification factor of 750. AML Prevents overvoltage or overcurrent caused by short circuit of active load or output to ground. Precision voltage and current can be closed loop monitoring of high voltage output and load current feedback signals.

TYPICAL APPLICATION

Electrostatic deflection, Electrophoresis, Electrorheological fluids, Electro-optic modulation, Material poling, AC or DC biasing, Ion beam steering, Particle accelerators, Mass spectrometers, Material characterization, Ferroelectrics, Atmospheric plasma, Dielectric barrier discharge

SPECIFICATIONS

PARAMETER	DESCRIPTION	
Input	220Vac±10%, max current 5A, (110Vac optional, Max current 10A).	
Output voltage	0 to ±7.5 kV DC or peak AC	
Output current	0 to ±50 mA DC or 160mA peak AC (Ac for 60ms, must not exceed 50mA rms max)	
Output voltage controller	0 to ±10 V DC or peak AC, Z _{in} =25kΩ	
DC Voltage Gain	750V/V	
Accuracy of DC voltage	<0.1%。	
DC offset voltage	< ±2V	
Output noise	<0.5Vrms	
Slew rate	>1000V/us (typical, 10%~90%)	
Large signal bandwidth (-3db)	DC to 15kHz	
Large signal bandwidth (1% distortion)	DC to 7.5kHz	
Small signal bandwidth (-3db)	DC to 75kHz	
Stability	<50ppm/hr, noncumulative	
Temperature coefficient	≤25ppm/°C。	
Voltage monitor	Ratio: 1:750; Accuracy: <±0.1%; Offset voltage: <±2mV; Noise: <10mVrms; Z _{out} =47Ω	
Current monitor	Ratio: 0.05V/mA; Accuracy: <±0.1%; Offset voltage: <±10mV; Noise: <10mVrms; Z _{out} =47Ω	
HV ON/OFF	Local	Individual push-button switch
	Remote	TTL high (or open) turns off high-voltage output. TTL low turns on high-voltage output.
Dynamic Adjustment	Panel potentiometer is used to optimize the AC response for various load parameters.	
Current limit/Trip	Switch selectable for either limit or trip. Potentiometer is used to adjust limit or trip level from 0 to ±160 mA	

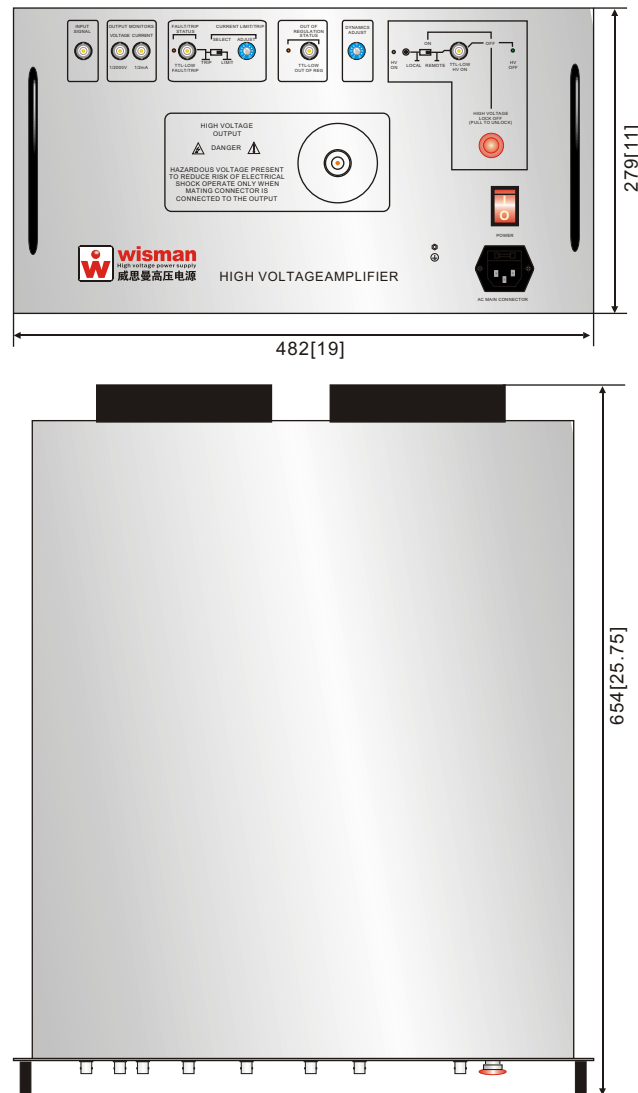


SPECIFICATION

ISO9001:2015

PARAMETER	DESCRIPTION
Out of Regulation Status	Illuminates and a TTL low is provided when unit fails to produce required HV output such as during current limit or short circuit load conditions
Limit/Trip status	Illuminates and a TTL low is provided when the high-voltage output is disabled due to the output current exceeding the current trip level, the detection of a high-voltage supply fault or the removal of the top cover
Dimensions	264mm×483mm×635mm(10.4X19x25)
Weight	25kg
HV connector	Wisman standard CA 30 connector with cable
BNC connector	Amplifier Input, Voltage Monitor, Current Monitor, Remote High Voltage ON/OFF, Out of Regulation Status, Fault/Trip Status

DIMENSIONS: mm[inch]



HIGH VOLTAGE AMPLIFIER