MB

±50V~±3kV
1W~2W
LOW RIPPLE HIGH
VOLTAGE POWER SUPPLY

wisman®
High voltage power supply
威思曼高压电源

B DOUBL-MODULES

- **HIGH STABILITY 10PPM/HR**
- **ULTRA LOW TEMPERATURE COEFFICIENT 15PPM/℃**
- **VERY COMPACT AND LIGHT WEIGHT**
- **SIX-SIDED SHIELDED**
- **EXTERNAL POTENTIOMETER OR AN EXTERNAL VOLTAGE REFERENCE**
- **OEM CUSTOMIZATION AVAILABLE**

INTRODUCTION

Wisman's MB series of 1W to 2W micro-modules that provide output voltage rang from ±50V to± 3kV. MB modules are compact,   six-sided shielded modules with high stability and low temperature coefficient All models are equipped with an external potentiometer or an external voltage for monitoring. With arc protection, short circuit protection and overload protection

TYPICAL APPLICATIONS

Mass spectrometry photomultiplier tubes (PMT), solid state detectors, Piezo crystal devices, ultrasonic transducers, microchannel plates (MCP), spectroscopy, scintillation counters, electron multiplier detectors, nuclear Instruments, electrophoresis, semiconductor testing, DNA sequencing, radiation counter, electron and ion beams, electrostatic chuck, high voltage, bias hipot testing, precision lenses, image intensifiers, semiconductor testing, chemical applications, laboratory applications, industrial application supplies.

MB SELECTION TABLE

kV	mA	P(W)	MODEL	kV	mA	P(W)	MODEL	kV	mA	P(W)	MODEL	kV	mA	P(W)	MODEL
0.1	10.00	1	MB0.1*1	0.6	1.67	1	MB0.6*1	1.5	0.67	1	MB1.5*1	5	0.20	1	MB5PN1
	20.00	2	MB0.1*2		3.33	2	MB0.6*2		1.33	2	MB1.5*2		0.40	2	MB5PN2
0.2	5.00	1	MB0.2*1	0.8	1.25	1	MB0.8*1	2	0.50	1	MB2*1	6	0.17	1	MB6PN1
	10.00	2	MB0.2*2		2.50	2	MB0.8*2		1.00	2	MB2*2		0.34	2	MB6PN2
0.3	3.33	1	MB0.3*1	1	1.00	1	MB1*1	2.5	0.40	1	MB2.5*1				
	6.67	2	MB0.3*2		2.00	2	MB1*2		0.80	2	MB2.5*2				
0.4	2.50	1	MB0.4*1	1.1	0.91	1	MB1.1*1	3	0.34	1	MB3*1				
	5.00	2	MB0.4*2		1.82	2	MB1.1*2		0.67	2	MB3*2				
0.5	2.00	1	MB0.5*1	1.25	0.80	1	MB1.25*1	4	0.25	1	MB4PN1				
	4.00	2	MB0.5*2		1.60	2	MB1.25*2		0.50	2	MB4PN2				

MB SELECTION EXAMPLE

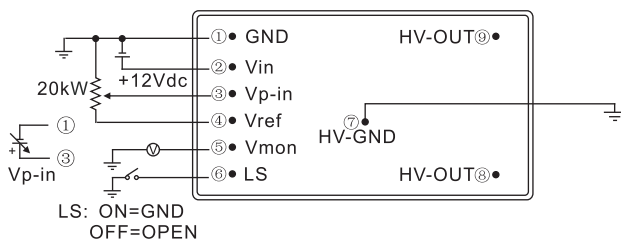| MB	3	*	2	VP	5	VM	5	LS	12
Series Number	Maximum Output Voltage (kV)	Output Polarity P:positive N:negative PN:positive and negative	Maximum Output Power (W)	Optional given VP: Voltage Programming	Optional given ratio 10:0to+10Vdc~0to maximum output 5:0to+5Vdc~0to maximum output 2.5:0to+2.5Vdc~0to maximum output	Optional display VP: Voltage monitor	Optional display ratio 10:0to+10Vdc~0to maximum output 5V:0to+5Vdc~0to maximum output 2.5:0to+2.5Vdc~0to maximum output	Optional startup method LS: GND=ON	Optional Input voltage 24:+24Vdc 15:+15Vdc 12:+12Vdc 5:+5Vdc

ISO9001:2015

MB SPECIFICATIONS

PARAMETER	DESCRIBE
Input Voltage	+12Vdc±2%, input current≤350mA. +24Vdc, +15Vdc, +5Vdc input.
Output	±50V~±3kV optional.
Stability	0.001%/hr after a 30 minute warm-up period.
Temperature Coefficient	≤15ppm/℃
Ripple	0.08% p-p of maximum output voltage. 0.001% available
Voltage Programming	By external 20kΩ potentiometer or external voltage control(Vp-in) 0 to +5 Vdc. Zin = 100kΩ.
Voltage Monitor	0 to +5Vdc = 0 to 100% output. Zout = 20kΩ. Accuracy = ±1%.
Voltage Line Regulation	±0.001%(for ±2% change in input voltage).
Voltage Load Regulation	0.5% (of MAX output voltage, no load to full load).
Operating Temperature	-10℃to +50 ℃
Storage Temperature	-45℃ to +85℃
Humidity	0% to 90% RH, non-condensing.
Cooling	Convection cooled.
Dimensions	0.47"H x 0.98"W x 1.79"D (12mm x 25mm x45.5mm).
Weight	25g

MB PIN INFORMATION

PIN	DESCRIPTION
1	Power Ground
2	Power Input +12Vdc±2%, Option +24Vdc, +15Vdc, +5Vdc
3	Voltage Programming, 0 to 5 Vdc corresponds to 0 to 100% of rated output, Zin=100kΩ
4	+5Vdc Reference
5	Voltage monitor, 0 to 5 Vdc corresponds to 0 to 100% of rated output, Zout=20KΩ
6	LS(Option), GND=ON/ HS, GND=OFF
7	HV GND
8	Negative High Voltage Output
9	Positive High Voltage Output

MB CONNECTION DIAGRAM

①● GND   HV-OUT⑨●
②● Vin
③● Vp-in
④● Vref   ⑦●
⑤● Vmon   HV-GND
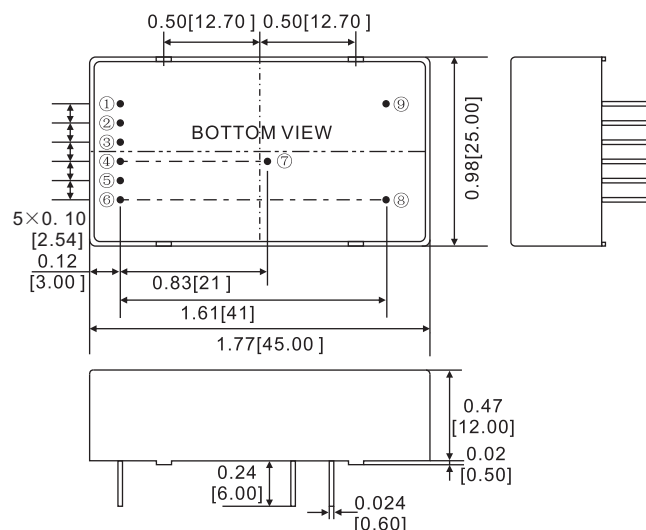⑥● LS   HV-OUT⑧●

20kW +12Vdc
①
③
+ Vp-in

LS: ON=GND
     OFF=OPEN

The case is internally connected to pin① and⑦, Pins are internally connected, and should be grounded.

* The instability in the external controlling voltage should be minimised as it directly affects the output voltage quality.
     TC≤100ppm/℃   PC≥1/4W

Typical ⑧ pin is negative High voltage output   ⑨ pin is positive High voltage output ,⑧⑨can be customized.

MB DIMENSIONS

DIMENSIONS:in.[mm]

0.50[12.70] 0.50[12.70]

① ● ⑨
② ●
③ ●   BOTTOM VIEW
④ ●   ⑦ ●
⑤ ●
⑥ ●   ⑧ ●

0.98[25.00]

5×0. 10
[2.54]
0.12
[3.00]
0.83[21]
1.61[41]
1.77[45.00]

0.47
[12.00]
0.02
[0.50]
0.24
[6.00]
0.024
[0.60]

B DOUBLE-MODULES

B2