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

ISO9001:2015

- OPTIONAL USB2.0,RS-232 or RS-485 IS AVAILABLE
- BIPOLAR OUTPUTS IN A SINGLE UNIT
- OUTPUT VOLTAGE 40kV~320kV
- OUTPUT POWER 300W~1200W
- UNIVERSAL INPUT, POWER FACTOR CORRECTED
- OVER VOLTAGE, ARC & SHORT CIRCUIT PROTECTION
- OEM CUSTOMIZATION AVAILABLE

INTRODUCTION

Wisman's XDB series of bipolar x-ray generators are designed for all kinds of x-ray tubes from different manufacturers. It is the best choice of OEM applications, with output voltage 320kV(±160kV), output power 300W, 600W and1200W option. Wisman's XDB series x-ray generator adopts wide voltage input, small package size, standard analog which makes it easier to integrate the XDB series into your x-ray analysis system. DSP based control circuitry provides excellent regulation of emission current, along with standing stability performance. Wisman's XDB series x-ray generator is with the interfaces of RS-232, RS-485, USB2.0 and ET option.

TYPICAL APPLICATIONS

Plastics Sorting, Crystal Inspection, Plating Measurement Diamond Inspection, Mineral Analysis, X-Ray Fluorescence, X-Ray Diffraction, Wavelengh Dispersive Spectroscopy.

XDB SELECTION TABLE

kV	mA	P(W)	MODEL	kV	mA	P(W)	MODEL	kV	mA	P(W)	MODEL
40	7.5	300	XDB40PN300	80	3.75	300	XDB80PN300	120	2.5	300	XDB120PN300
	15	600	XDB40PN600		7.5	600	XDB80PN600		5	600	XDB120PN600
	30	1200	XDB40PN1200		15	1200	XDB80PN1200		10	1200	XDB120PN1200
60	5	300	XDB60PN300	100	3	300	XDB100PN300	140	2.14	300	XDB140PN300
	10	600	XDB60PN600		6	600	XDB100PN600		4.28	600	XDB140PN600
	20	1200	XDB60PN1200		12	1200	XDB100PN1200		8.57	1200	XDB140PN1200
320	3.75	1200	XDB320PN1200								

XDB SELECTION EXAMPLE

XDB	320	PN	1200	VIP	10	VIM	10	TR	AX
Series Number	Maximum Output voltage (kV)	Output polarity PN: Bipolarity output	Maximum Output Power (W)	Option voltage/Current Program	Option 10:0~+10Vdc =0 to full scale 5:0~+5Vdc =0 to full scale	Option voltage/Current Monitor	Option 10:0~+10Vdc =0 to full scale 5:0~+5Vdc =0 to full scale	Option ET: ET Interface TR:RS-232 Interface AB:RS-485Interface	Option X=0,1,2,3,5,8,N arc (0=no ARCN=ARC, does not shutdown)

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XDB SPECIFICATIONS

PARAMETER	DESCRIBE		
Input	90~264Vac, 47~63 Hertz, for 300 watt units 180~264Vac, 47~63 Hertz for 600 and 1200 watt units		
Output	40kV, 60kV, 80kV, 100kV, 120kV, 140kV,320kV Maximum output voltage adjustable 300W, 600W, 1200W Maximum output power adjustable		
Stability	25ppm per hours after 2 hour warm-up period.		
Temperature Coefficient	≤25ppm/℃.		
Ripple	≤1% rms(>20kHz),0.1% rms (≤20kHz)		
Voltage/Current Monitor	0 ~ +10 Vdc corresponds to 0 to maximum output, Zout=4.99kΩ, accuracy:±1%.		
Voltage Local Programming	Internal potentiometer to set voltage from 0 to maximum output Voltage.		
Voltage Remote Programming	0 ~ +10Vdc proportional from 0 to maximum output Voltage, Zin=10MΩ.		
Current Local Programming	Internal potentiometer to set current from 0 to maximum output current.		
Current Remote Programming	0 ~ +10Vdc proportional from 0 to maximum output current, Zin=10MΩ.		
Voltage Load Regulation	0.01% (no load to full load change).		
Voltage Line Regulation	±0.01% (input Voltage line change±10%).		
Current Load Regulation	0.01% (no load to full load change).		
Current Line Regulation	±0.01% (input voltage line change30% - 100%).		
Filament Supply	Output current: 0~5 amps at a compliance of +10 Vdc, maximum.The filament loop is disabled when the kV output is less than 20% of full scale output to protect the X-Ray tube.Other filament levels available on special order.		
Operating Temperature	0℃~+50℃		
Storage Temperature	-40℃~+85℃		
Humidity	20%~85% RH, non-condensing.		
Dimensions	4.72" H x 11.97" W x 11.97" D(120.00mm x 304.00mm x304.00mm).	Weight	13kg
	10.45" H x 19" W x 21.45" D(266.00mm x 482.50mm x546.00mm).		65kg

XDB ANALOG INTERFACE

J2		SIGNAL
1	Power Supply Fault	Open Collector,50Vdc@10mA Maximum.
2	Current Program Input	0 ~ +10Vdc=0 to maximum output.
3	voltage Program Input	0 ~ +10Vdc= 0 to maximum output.
4	Filament Limit Input	0 ~ +10Vdc=0 to maximum output. Zin=10MΩ
5	Local Filament Limit	Multi-turn front panel potentiometer.
6	Filament Preheat Input	0 ~ +10Vdc=0 to maximum output.
7	Local Filament Preheat	Multi-turn front panel potentiometer.
8	Voltage Monitor	0 ~ +10Vdc=0 to maximum output.
9	Signal Ground	Ground
10	Current Monitor	0 ~ +10Vdc=0 to maximum output.
11	HV Enable Input	Connect to Pin 12 to HV Enable Supply.
12	HV Enable Output	+12Vdc @Open,=15mA @ Closed.
13	Filament Monitor	1 Vdc=1 Amp, Zout=10kΩ
14	HV on output signal	Open Collector, 35Vdc @ 10mA Maximum.
15	Reset	Connect to Pin 9, Internal Multi-turn Potentiometer To Control voltage.

ANALOG INTERFACE

PIN	SIGNAL	PIN	SIGNAL
S1	Setting for Voltage local control	S2	Setting for Current local control

RS-232/RS-485 DIGITAL INTERFACE

	SIGNAL		SIGNAL
1	N/C	6	N/C
2	TXD/Transmit Data	7	RS-485B
3	RXD/Receive Data	8	N/C
4	N/C	9	RS-485A
5	SGND		

ET INTERFACE

PIN	SIGNAL	PARAMETERS
1	RX+	Receive Data+
2	RX-	Receive Data-
3	TX+	Transmit Data+
4	N/C	No Connection
5	N/C	No Connection
6	TX-	Transmit Data-
7	N/C	No Connection
8	N/C	No Connection

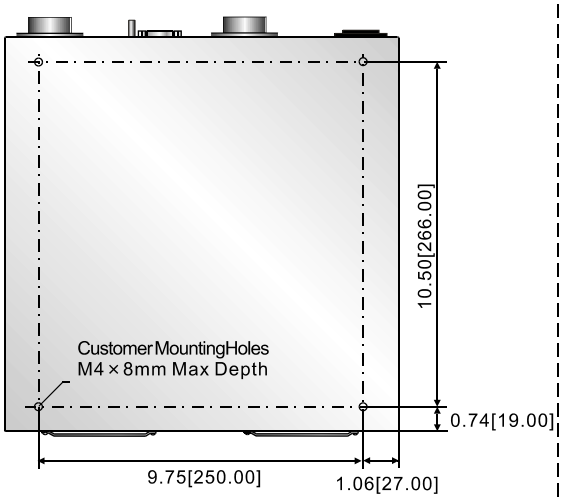
D X-RAY GENERATOR

XDB DIMENSIONS

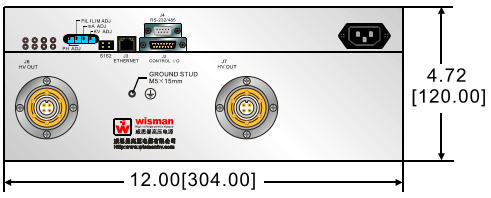
DIMENSIONS: in.[mm]

300W~1200W(40kV~140kV):

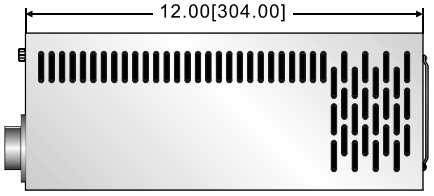
BOTTOM VIEW



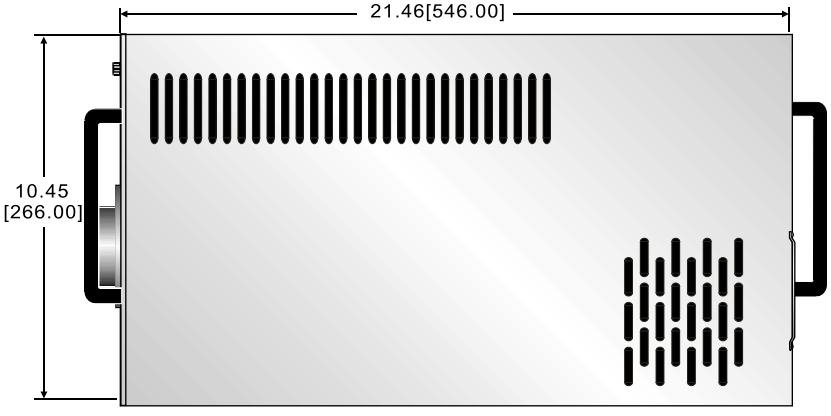
D FRONT VIEW



SIDE VIEW

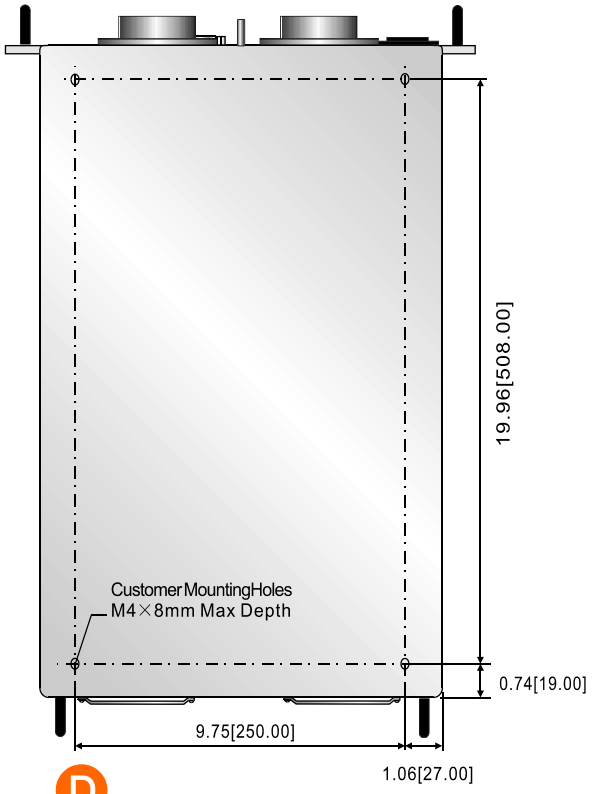


SIDE VIEW

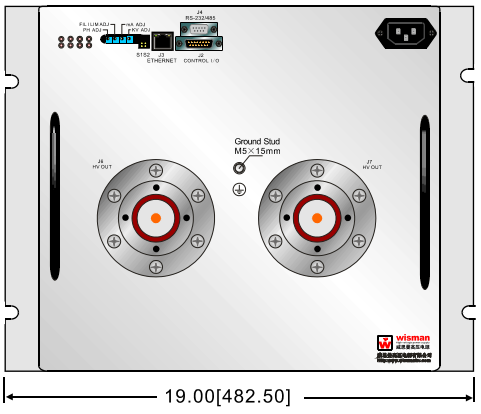


300W~1200W(320kV):

BOTTOM VIEW



D FRONT VIEW



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