- OPTIONAL USB2.0,RS-232 OR RS-485 IS AVAILABLE
- OUTPUT VOLTAGE FROM 10kV ~ 130 kV
- ADJUSTABLE INTEGRATED FILAMENT SUPPLY
- OVERVOLTAGE ,ARC& SHORT CIRCUIT PROTECTION
- VOLTAGE & CURRENT PROGRAMMING
- LOCAL AND REMOTE CONTROL
- SAFETY INTERLOCK
- OEM CUSTOMIZATION AVAILABLE

INTRODUCTION

Wisman's XRG series x-ray generators is specialized for all kinds for x-ray tubes from different manufacturers, which integrates filament supply providing regulated DC current adjustable between 0.3A to 3A at 5.5V.Extremely stable voltage and emission current outputs result in significant performance improvements. Wisman's XRG series x-ray generator can realize remote control via potentiometer, and with the function of voltage, current monitoring, over voltage protection, short-circuit and safety interlock protection. RS232 and ET interface option.

TYPICAL APPLICATIONS

X-ray tubes,X-ray Fluorescence Spectroscopy Analysis, Science, Industrial Applications, Laboratory Applications.

XRG SELECTION TABLE

kV	mA	P(W)	MODEL	kV	mA	P(W)	MODEL	kV	mA	P(W)	MODEL	kV	mA	P(W)	MODEL
10	1	10	XRG10P10	40	0.25	10	XRG40P10	70	0.14	10	XRG70P10	120	0.08	10	XRG120P10
	3	30	XRG10P30		0.75	30	XRG40P30		0.43	30	XRG70P30		0.25	30	XRG120P30
	6	60	XRG10P60		1.5	60	XRG40P60		0.86	60	XRG70P60		0.5	60	XRG120P60
	15	150	XRG10P150		3.75	150	XRG40P150		2.14	150	XRG70P150		1.25	150	XRG120P150
	30	300	XRG10P300		7.5	300	XRG40P300		4.29	300	XRG70P300		2.5	300	XRG120P300
20	0.5	10	XRG20P10	50	0.2	10	XRG50P10	80	0.13	10	XRG80P10	130	0.07	10	XRG130P10
	1.5	30	XRG20P30		0.6	30	XRG50P30		0.38	30	XRG80P30		0.23	30	XRG130P30
	3	60	XRG20P60		1.2	60	XRG50P60		0.75	60	XRG80P60		0.46	60	XRG130P60
	7.5	150	XRG20P150		3	150	XRG50P150		1.88	150	XRG80P150		1.15	150	XRG130P150
	15	300	XRG20P300		6	300	XRG50P300		3.75	300	XRG80P300		2.3	300	XRG130P300
30	0.33	10	XRG30P10	60	0.17	10	XRG60P10	100	0.1	10	XRG100P10				
	1	30	XRG30P30		0.5	30	XRG60P30		0.3	30	XRG100P30				
	2	60	XRG30P60		1	60	XRG60P60		0.6	60	XRG100P60				
	5	150	XRG30P150		2.5	150	XRG60P150		1.5	150	XRG100P150				
	10	300	XRG30P300		5	300	XRG60P300		3	300	XRG100P300				

XRG SELECTION EXAMPLE

XRG	130	P	300	VIP	10	VIM	10	AX	ACF	/	SSX
Series Number	Maximum Output Voltage (kV)	Output Polarity P: Positive	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 X=0,1,2,3,5,8,Narc(N=ARC,does not shutdown. 0= No ARC)	Option AC filament supply		Option Soft Start X:0.1S~120S Optioanl Unit:s

D | X-RAY GENERATOR

SPECIFICATIONS

PARAMETER	DESCRIBE		
Input Voltage	220Vac±10% (110Vac optional), @10.0A maximum.		
Output Voltage	10kV, 20kV, 30kV, 40kV, 50kV, 60kV, 70kV, 80kV,100kV, 120kV,130kV, 10W , 30W, 60W, 150W, 300W, output power.		
Stability	10ppm per hours after 1/2 hour warm-up.		
Temperature Coefficient	≤25ppm/℃.		
Ripple	0.1% p-p +1Vrms.		
Voltage/Current Monitor	0~+10Vdc , Accuracy:±1%.Zout=4.99kΩ,accuracy:±1%		
Local Voltage Programming	Internal multi-turn potentiometer to set voltage from 0 to full output voltage.		
Local Current Programming	Internal potentiometer to set beam current between 0 to full output current.		
Remote Voltage Programming	0 ~ +10Vdc proportional from 0 to full output voltage. Zin=10MΩ		
Remote Current Programming	0 ~ +10Vdc proportional from 0 to full output current. Zin=10MΩ		
Voltage Load Regulation	Load: 0.005%+500mV (of output voltage no load to full load.)		
Voltage Line Regulation	Line: ±0.005%+500mV (for ±10% change in input voltage.)		
Current Load Regulation	Load: 0.01%±100uA (of output current from 0 to rated voltage).		
Current Line Regulation	Line: ±0.005% for ±10% change in input voltage.		
Filament Supply	Specify at time of order :AC:9A,3V.DC:3A,3V.Preheat level is 0.45amps instandby.		
HV Output Connector	Delrin type connector, recessed.Cable assembly with mating connector 39.4in (1m).		
I/O Connectors	DB25 ,for programming and monitor connections.		
Operating Temperature	0℃~+50℃.		
Storage Temperature	-40℃~+85℃.		
Cooling	Free air convection.		
Humidity	20%~85% RH, non-condensing.		
Dimensions	1.73''x19.00''Wx19.00''D(44mmx482.5mmx482.5mm)	Weight	7.7kg
	3.46''x19.00''Wx19.00''D(88mmx482.5mmx482.5mm)		14kg

ANALOG INTERFACE CONNECTION

J2	SIGNAL	PARAMETER	PIN	SIGNAL	PARAMETER
1	Ground	Signal Ground	14	Local HV Off Out	+15V at Open, <25mA at Closed Connect to HV OFF for Fp Operation
2	External Inhibit	Ground=Inhibit, Open=HV On	15	HV Off	
3	External Interlock	+15Vdc at Open, <15mA at Closed	16	Remote HV On	+15V, 10mA Max=HV Off, 0=HV On, +15Vdc, 10mA Max=HV Off
4	External Interlock Return	Return for Interlock	17	Remote HV Off Indicator	
5	Current Monitor	0~+10Vdc=0 to 100% Rated Output	18	Remote HV On Indicator	0=HV Off, +15Vdc, 10mA Max=HV On
6	Voltage Monitor	0~+10Vdc=0 to 100% Rated Output	19	Remote Voltage Mode	Open Collector 50Vdc Max, 10mA Max On=Active
7	+10Vdc Reference	+10Vdc, 1mA Max	20	Remote Current Mode	
8	Remote Current Program In	0~+10Vdc=0 to 100% Rated Output	21	Remote Power Mode	
9	Local Current Program Out	Front Panel Program Voltage	22	Remote PS Fault	0=Fault, +15Vdc, 0.1mA Max=No Fault
10	Remote Voltage Program In	0~+10Vdc=0 to 100% Rated Output	23	+15Vdc Output	+15Vdc, 100mA Max
11	Local Voltage Program Out	Front Panel Program Voltage	24	Power monitor	Optional
12	Power Monitor	0~+10Vdc=0 to 100% Rated Output (Optional)	25	GND	GND
13	Remote Power Program In				

RS-232/RS-485 DIGITAL INTERFACE D

PIN	SIGNAL	PIN	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		

FILAMENT OUTPUT CONNECTOR

PIN	SIGNAL	PIN	SIGNAL
1	Filament output	2	GND

XRG ET DIGITAL INTERFACE D

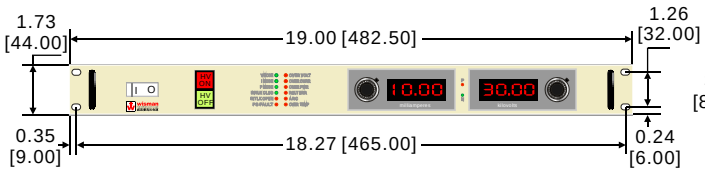
SIGNAL			SIGNAL			SIGNAL		
1	RX+	Receive Data+	4	N/C	N/C	7	N/C	N/C
2	RX-	Receive Data-	5	N/C	N/C	8	N/C	N/C
3	TX+	Transmit Data+	6	TX-	Transmit Data-			

DIMENSIONS

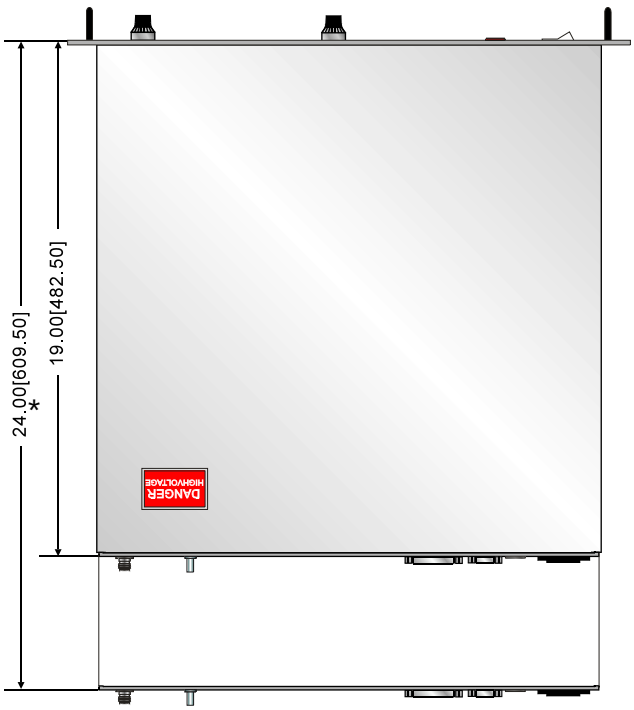
DIMENSIONS: in.[mm]

10W~300W:

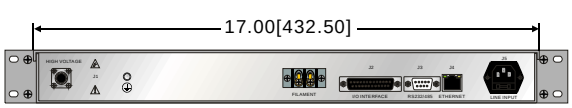
FRONT VIEW



TOP VIEW

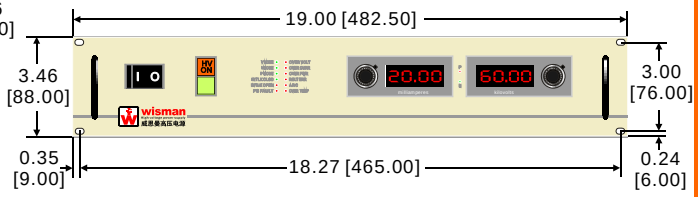


BACK VIEW



600W~1200W:

FRONT VIEW



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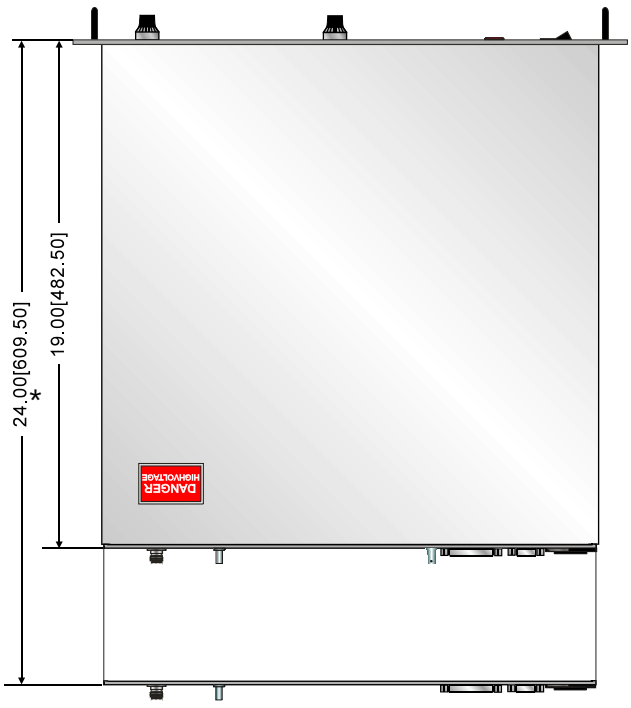
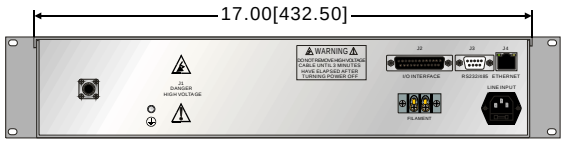


BACK VIEW



Chassis depth is 609.5mm when output voltage is 80~130kV.