160kV、180kV 80W~640W X-RAY GENERATOR XRH

ISO9001:2015

- 160kV 180kV OUTPUT VOLTAGE
- FLOATING FILAMENT
- INTERNAL GRID POWER SUPPLY
- POWER FACTOR CORRECTION
- CLOSED-LOOP EMISSION CONTROL
- OEM CUSTOMIZATION AVAILABLE

X-RAY GENERATOR

INTRODUCTION

Wisman's XRH series x-ray generator is a low-noise microfocus x-ray tube power supply with output power of 80W~640W and output voltage up to 180kV.These light weight rack-mount-able X-ray generator house a miniaturized high voltage system in a solid encapsulated design. Wisman's XRH series x-ray adopts an input power factor correction circuit, thereby reducing the requirement for input current and at the same time minimizing line-related EMI interference. Wisman's XRH series x-ray generator adopts Wisman's unique high-voltage floating technology, which integrates the floating filament and grid supply. Wisman's XRH series x-ray generator incorporates an internal floating filament and a closed-loop emission control circuit for precise regulation of emission current, providing remote monitoring and control of voltage, current and filament current.

TYPICAL APPLICATIONS

X-ray Inspection, Non-Destructive Testing, X-ray imaging.

XRH SPECIFICATIONS

kV	mA	P(W)	MODEL	kV	mA	P(W)	MODEL
160	0.5	80	XRH160*80	160	4.0	640	XRH160*640
160	1.0	160	XRH160*160	180	0.5	90	XRH180*90
160	2.0	320	XRH160*320	180	1.0	180	XRH180*180

XRH SELECTION EXAMPLE

XRH	/	160	*	640
Series Number		Maximum Output Voltage (kV)	Output polarity: N: Negative P:Positive	Maximum Output Power (W)

OPTION			
AX	Arc Protection	CP	Constant Power
AOL	Overload off	SSX	Customized Slow start
APT	Over power Off	RFR	Remote replacement
BFP	Blank Front Panel	AB	RS-485 Control

XRH SPECIFICATIONS

SIGNAL	PARAMETERS
Input Voltage	220Vac±10%，10Amaximum Current .
Output Voltage	0-160kV, negative polarity；80W~640W Maximum output power option.
Output Voltage Stability	Within 0.1% of set value after warm-up period at full load.
Ripple	≤320W:<0.1% p-p 640W: 0.7% p-p
Voltage/Current Monitor	0 ~ +10Vdc corresponds to 0 to maximum output, Zout=4.99KW,accuracy:±1%.
Beam Current Stability	Within 0.1% of set value after 1/2 hour warm-up.
Filament Supply	Constant current DC filament supply with closed-loop current feedback. Filament Voltage: 7V rms (high frequency) max. Filament Current: 5A max. adjustable 0-5.0A by external Filament Limit Programming input.
Floating Grid Power Supply	The grid supply controls tube beam current in a closed-loop regulation design. The grid supply：0~1200Vdc。 Grid Voltage Ripple：Less than 1.0V rms at any frequency. Grid Supply Response：Less than 0.5mA in less than 10ms.

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Analog Control Inputs	Three inputs have internal load resistance greater than 330kΩ
Output Voltage Control	80W、320W、640W：0 to +10Vdc=0~100% rated output.
Beam Tube Current Control	80W： 0~+10Vdc，+10Vdc = 0.5mA tube current. 160W：0~+10Vdc，+10Vdc = 1.0mA tube current. 320W：0~+10Vdc，+10Vdc = 2.0mA tube current. 640W：0~+10Vdc，+10Vdc = 4.0mA tube current.
Filament Current Control	0 to +10Vdc, where 5.0Vdc = 5.0A filament current.
Connections	Output Connector：R24 Control Connector：25 PIN “D” Connector.
Environmental	0 to +50° C at 10-95% RH, non-condensing. Forced convection cooling.
Dimensions	6.92″ H x 19.00″ W x 22.00″ D(176mm x 483mm x558.8mm)。
Weight	30kg.

XRH ANALOG INTERFACE PIN25

Jb1	SIGNAL	
1	Filament Limit	0~+5Vdc = 0~5A Filament Limit
2	High Voltage on Control	+12Vdc IN = HV ON
3	N/C	
4	N/C	
5	High Voltage On Status	Low = HV ON
6	A-Ground Ground	
7	kV Monitor	0~+10Vdc = 0~100% Rated output
8	Interlock Control	+12Vdc IN = Interlock Closed
9	N/C	
10	mA Demand	0~+10Vdc = 0~100% Rated Output
11	N/C	
12	N/C	
13	D-Ground	Ground
14	Filament Monitor	0~+5Vdc = 0~5A
15	N/C	
16	N/C	
17	N/C	
18	N/C	
19	mA Monitor	0~+10Vdc = 0-100% Rated Output
20	N/C	
21	+12Vdc Out	+12Vdc Out,1mA maximum
22	kV Demand	0~+10Vdc = 0-100% Rated Output
23	Grid Inhibit/Fil. Select	Low = Grid Inhibit
24	N/C	
25	Chassis Gnd (I/O Shield)	Chassis Gnd

RS-232/RS-485 DIGITAL INTERFACE Ⓓ

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

XRH TERMINAL BLOCK 10 PIN

TB1	SIGNAL	
1	Interlock	Jumper to TB1-2 to close interlock
2	Interlock Return	Jumper to TB1-1 to close interlock
3	kV Monitor	0~+10Vdc= 0~100% Rated Output
4	mA Monitor	0~+10Vdc= 0~100% Rated Output
5	Filament Monitor	0~+5Vdc = 0~5A
6	N/C	N/C
7	HV ON Indicator	+15Vdc = HV ON
8	Voltage Mode Indicator	Low = Voltage Mode.
9	Current Mode Indicator	Low = Current Mode
10	GND	Ground

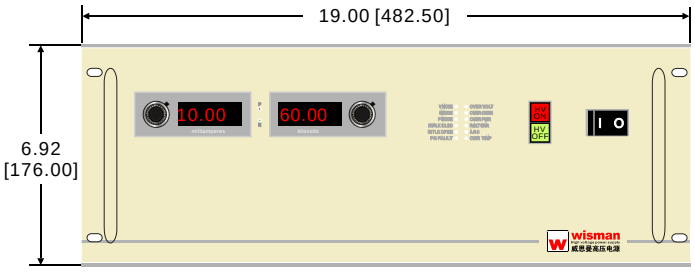
ETHERNET DIGITAL INTERFACE Ⓓ

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

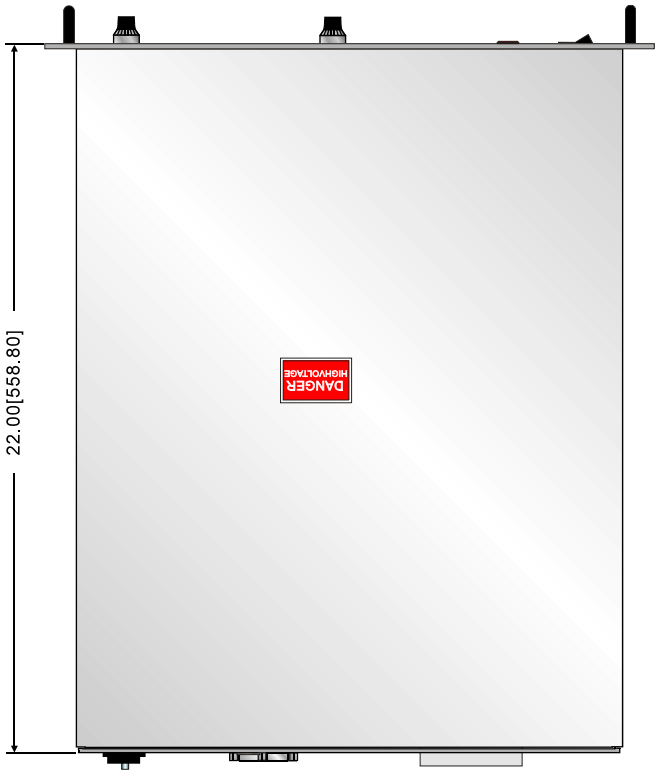
DIMENSIONS

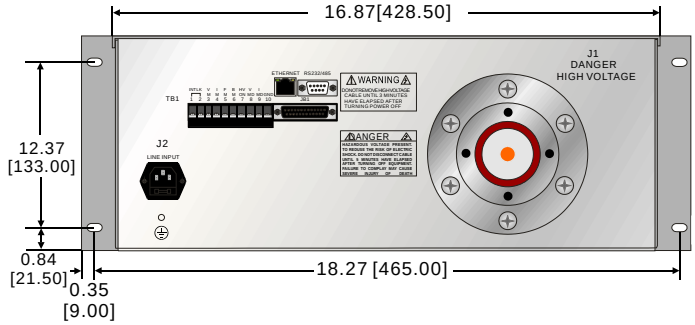
DIMENSIONS: in.[mm]

FRONT VIEW



TOP VIEW





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