XRC

10kV~70kV
120W
X-RAY GENERATOR

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

ISO9001:2015

- *OUTPUT VOLTAGE FROM 10kV~70kV*
- *INPUT 86Vac~265Vac*
- *POWER FACTOR CORRECTED FRONT END*
- *ET, RS-232 OR RS-485 IS AVAILABLE*
- *OVER VOLTAGE & SHORT CIRCUIT PROTECTION*
- *LOCAL AND REMOTE CONTROL*
- *ADJUSTABLE INTEGRATED FILAMENT SUPPLY*
- *SAFETY INTERLOCK*
- *OEM CUSTOMIZATION AVAILABLE*

INTRODUCTION

Wisman's AC input XRC Series of 120 watt high voltage power supply modules feature a power factor corrected front end, providing power factor along with universal input voltage (86Vac to 265Vac) capabilities. Wisman's XRC Series of regulated X-ray power supplies offer output voltages to 70kV and incorporate a filament supply which provides regulated DC current adjustable between 0.3A and 3A at 5.5Vdc. High voltage and filament current can be linearly ramped up. The XRC incorporates local and remote programming, monitoring, safety interlock, short-circuit and overload protection.It provides RS-232,RS-485 interface the ideal choice of OEM.

TYPICAL APPLICATIONS

Grounded anode X-ray tubes from Kevex, Oxford, RTW, Superior, Varian ,Trufocus.ESD, Sulfur-detector,X-ray fluorescence instrument, X-ray imaging, X-ray diffractometer ,Non-destructive testing,Portable X-ray machine, Rohs detector, Precious metal detector , Life Science, Medical industry, Science experiment.

XRC SELECTION TABLE

kV	mA	P(W)	MODEL	kV	mA	P(W)	MODEL
10	12	120	XRC10*120	60	2	120	XRC60*120
15	8	120	XRC15*120	70	1.7	120	XRC70*120
20	6	120	XRC20*120				
30	4	120	XRC30*120				
40	3	120	XRC40*120				
50	2.4	120	XRC50*120				

XRC SELECTION EXAMPLE

XRC	70	P	120	2	TR	AX
Series Number	Maximum Output Voltage (kV)	Output Polarity: Positive	Maximum Output Power (W)	OPTION: Maximum Ouput Current(mA)	OPTION: TR:RS232: AB:RS485 ET INTERFACE	OPTION: X=0,1,2,3,5,8, N arc (0=no ARC N=ARC,does not shutdown)

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XRC SPECIFICATIONS

PARAMETER	DESCRIBE
Input	86Vac-256Vac,47Hz-63Hz.
Output	10kV, 15kV, 20kV, 30kV, 40kV, 50kV, 60kV, 70kV Maximum output Voltage option.120W Maximum output power option.
Stability	25ppm per hours after 2 hour warm-up.
Temperature Coefficient	≤25ppm/℃.
Ripple	≤1% rms(>20kHz),0.1% rms (≤20kHz)
Voltage/Current Monitor	0~+10Vdc corresponds to 0 to maximum output, Zout=4.99kW, 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=10MW.
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=10MW.
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 change 30%~100%).
Filament Supply	Output current: 0.3~3.5A, adjustable. Voltage:0~5.5V. Filament preheating function.
Operating Temperature	0℃~+50℃
Storage Temperature	-40℃~+85℃
Humidity	20%~85% RH, non-condensing.
Dimensions 10kV~50kV	9.06 ” H x 5.00 ” W x 3.62 ” D(230.00mm x 127.00mm x92.00mm).
Dimensions 60kV~70kV	11.02 ” H x 5.00 ” W x 3.62 ” D(280.00mm x 127.00mm x92.00mm).
Weight	10kV~50kV: 3.5kg. 60kV~70kV: 4.5kg.

XRC PIN15 INTERFACE CONNECTOR

I/O	PARAMETER	I/O	PARAMETER
1	Current Program Input	9	Power Supply Fault
2	Voltage Program Input	10	+10 Vdc Reference
3	High Voltage Enable	11	Ground
4	Current Monitor	12	Filament Limit Input /Monitor
5	Interlock Output	13	Filament Preheat Input/Monitor
6	Interlock	14	Filament Monitor
7	Voltage Monitor	15	Current Program Output
8	Voltage Program Output		

Remark:PIN 3 LOW LEVEL START,ON=GND,OFF=OPEN

XRC FILAMENT CONNECTOR

PIN	SIGNAL	PIN	SIGNAL
1	Filament output	2	Ground

XRC ET DIGITAL INTERFACE Ⓓ

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-			

RS-232/RS-485 DIGITAL INTERFACE Ⓓ

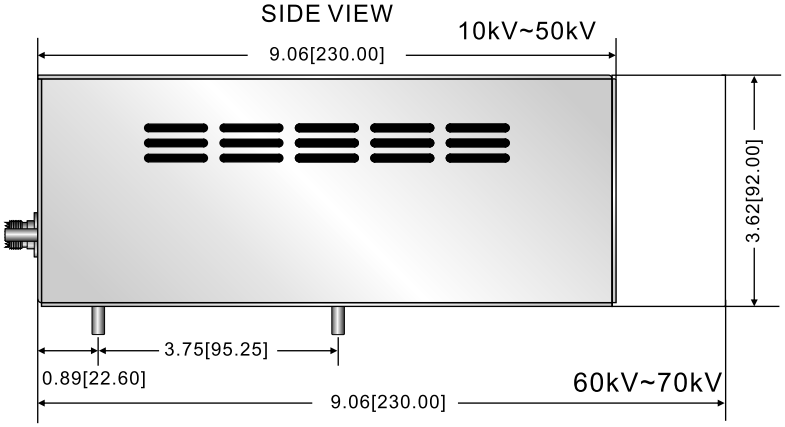
SIGNAL		SIGNAL	
1	N/C	6	N/C
2	TXD/Transmit Data	7	RS-485B
3	RXD/Receive Data	8	N/C
4	N/C	9	RS-485A
5	SGND		

DIMENSIONS

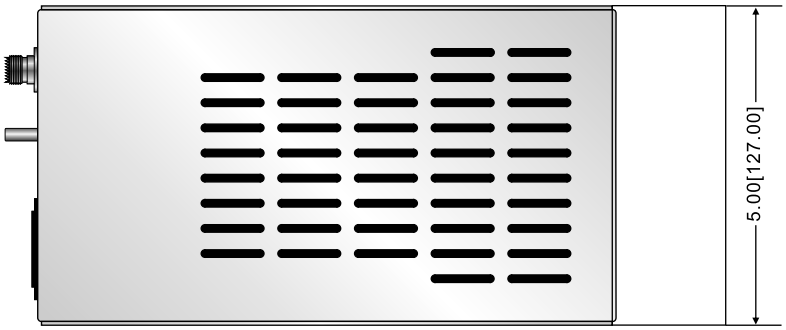
ISO9001:2015

DIMENSIONS in.[mm]

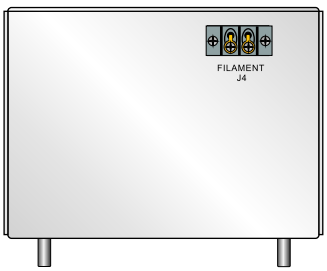
SIDE VIEW



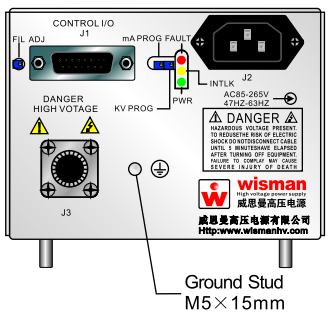
TOP VIEW



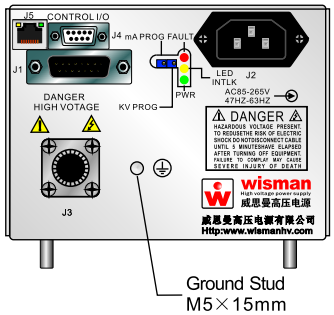
BACK VIEW



FRONT VIEW



FRONT VIEW



ET INTERFACE/RS232/RS485 OPTIONAL