ISO9001:2015

- OPTIONAL USB2.0、RS-232 OR RS-485 IS AVAILABLE
- 50kV ,50 W, THE SMALLEST OF ALL, 45% SMALLER THAN XRN.
- 50kV,2mA,50W MAXIMUM
- ADJUSTABLE INTEGRATED FILAMENT SUPPLY
- OVER VOLTAGE ,ARC & SHORT CIRCUIT PROTECTION
- VOLTAGE & CURRENT PROGRAMMING
- LOCAL AND REMOTE CONTROL
- SAFETY INTERLOCK
- OEM CUSTOMIZATION AVAILABLE

INTRODUCTION

Wisman's series is the smallest x-ray generator in the market today. It is 45% smaller than XRN series, the weight is 1.5kg, which output voltage ranges from10kV to 50kV and offers filament current to ground, 0~5Vdc adjustable, filament current 0.3A to 3.5A adjustable. XN series is with the function of overcurrent, overvoltage, arc and safety interlock etc and can be controlled locally and remotely, providing USB2.0, RS-232 and RS485 option.

TYPICAL APPLICATIONS

Grounded cathode X-ray tubes from Kevex, Oxford, RTW, Superior, Varian and Trufocus. Thickness, 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 and so on.

XN SELECTION TABLE

kV	mA	P(W)	MODEL	kV	mA	P(W)	MODEL	kV	mA	P(W)	MODEL
10	1.00	10	XN10P10	30	0.33	10	XN30P10	50	0.20	10	XN50P10
	3.00	30	XN10P30		1.00	30	XN30P30		0.60	30	XN50P30
	5.00	50	XN10P50		1.67	50	XN30P50		1.00	50	XN50P50
20	0.50	10	XN20P10	40	0.25	10	XN40P10		2.00	50	XN50P50-2
	1.50	30	XN20P30		0.75	30	XN40P30				
	2.50	50	XN20P50		1.25	50	XN40P50				

XN SELECTION EXAMPLE

XN	50	P	50	-	2	VIP	10	VIM	10	M1	AX	/	XCC
Series Number	Maximum Output Voltage (kV)	Output Polarity: P:Positive	Maximum Output Power (W)		Option: Maximum Output Current (mA)	Option: VP:Voltage Programming IP:Current Programming VIP:Voltage and Current Programming	Option: 10:0~+10Vdc=0 to max. output 5:0~+5Vdc=0 to max. output	Option: VM:Voltage Monitor IM:Current Monitor VIM:Voltage and Current Monitor	Option: 10:0~+10Vdc=0 to max. output 5:0~5Vdc=0 to max. output	Option: M1:RS232/USB /RS-485/ET M2:RS232/ RS-485	Option: X=0,1,2, 3,5,8,N. 0: No arc N :Arc but no fault		Option: XCC: compatible XRW:HV cable (only50W)

D X-RAY GENERATOR

SPECIFICATIONS

PARAMETER	DESCRIBE		
Input Voltage	+24Vdc±10% ,5.0A maximum for 50W.		
Output Voltage	10kV, 20kV, 30kV, 40kV, 50kV.		
Stability	＜0.02% per 8 hours after 1/2 hour warm-up.		
Temperature Coefficient	≤25ppm/℃.		
Ripple	0.1% p-p of output voltage.		
Voltage/Current Monitor	0~+10Vdc , Zout=10kW, 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=10MW		
Remote Current programming	0 ~+10Vdc proportional from 0 to full output current.Zin=10MW		
Voltage Load Regulation	0.01% of output voltage no load to full load.		
Voltage Line Regulation	±0.01% for ±10% change in input voltage.		
Current Load Regulation	0.01% of output current from 0 to rated voltage.		
Current Load Regulation	±0.01% for ±10% change in input voltage.		
DC Filament Supply	Current: 0.3~3.5A, adjustable, Voltage: 0~5.5V,Preheat.		
Operating Temperature	0℃~+50℃.		
Storage Temperature	-40℃~+85℃.		
Cooling	Free convection for the 50W unit.		
Humidity	20%~85% RH, non-condensing.		
Dimensions	2.95” H x 2.95” W x8.06” D (75.0mm x 75.0mm x205mm).	Weight	1.5kg

XN POWER INPUT/ FILAMENT OUTPUT CONNECTOR

SIGNAL			SIGNAL		
1	+24V Input	+24Vdc@ 5A, max	2	+24Vdc Ground	Power Ground
3	Filament output	+5.5Vdc@3.5A, max	4	Ground	Ground

ANALOG INTERFACE CONNECTION

I/O	SIGNAL	PARAMETER
1	Ground	Ground
2	Voltage Monitor	0~+10Vdc=0 to full scale, Zout=10kW
3	Current Monitor	0~+10Vdc=0 to full scale, Zout=10kW
4	Interlock Output	Alternate Interlock Configurations
5	+10Vdc Reference	+10 Vdc @ 1mA , maximum
6	Filament Monitor	1Vdc=1A，Zout=10kW
7	Voltage Program Input	0~+10Vdc = 0 to full scale, Zin=10MW
8	Local Voltage Program	10 turn pot , screwdriver adjust
9	Filament Limit Setpoint	1Vdc =1A, Screwdriver adjust
10	Current Program Input	0~+10Vdc = 0 to full scale, Zin=10MW
11	Local Current Program	10 turn pot , screwdriver adjust
12	No Used(+24VOut for Interlock)	Optional Interlock Configuration
13	No Used(Interlock Coil)	Optional Interlock Configuration
14	Filament Preheat Setpoint	1Vdc =1A,Screwdriver Adjust
15	Ground	Ground

RS-232/RS-485 DIGITAL INTERFACE D

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		

XN ET DIGITAL INTERFACE D

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

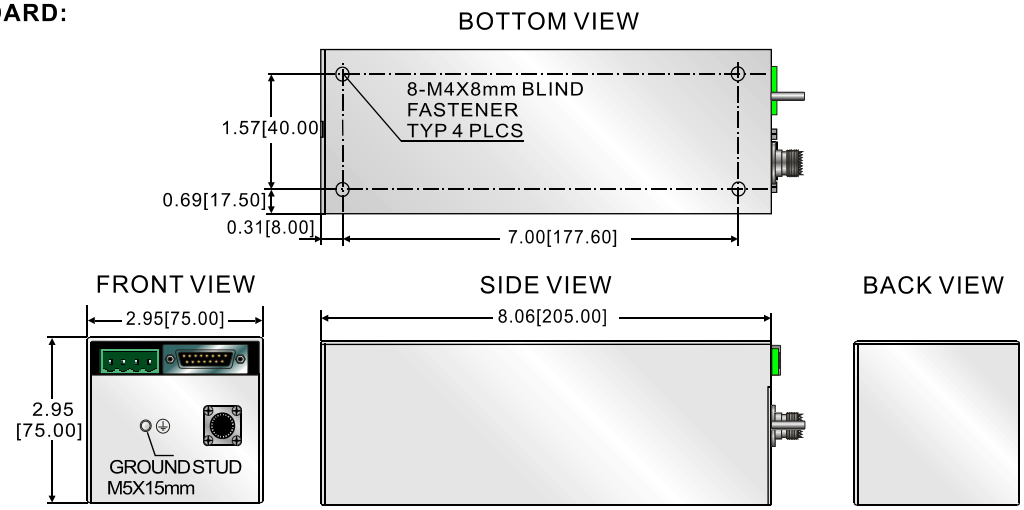
USB DIGITAL INTERFACE D

USB		SIGNAL	USB		SIGNAL
1	VBUS	+5Vdc	3	D+	Data+
2	D-	Data-	4	GND	Ground

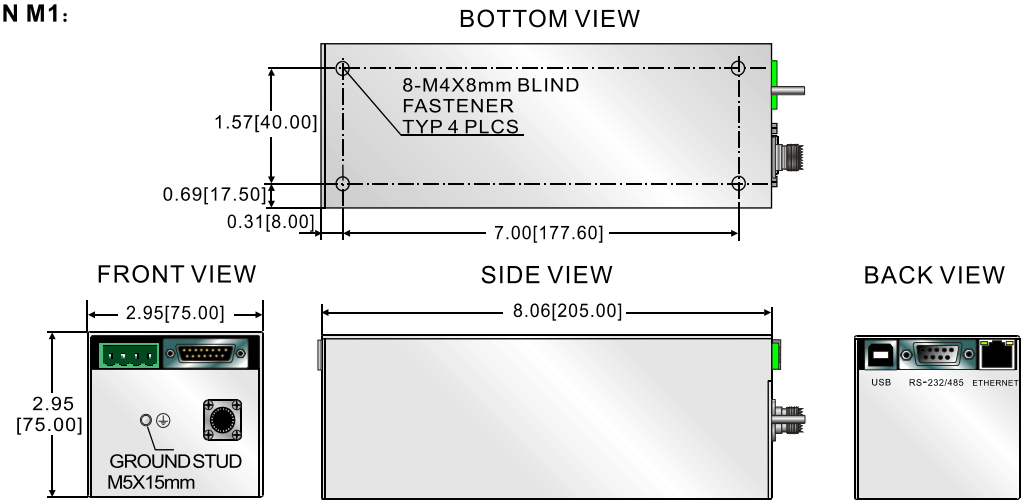
DIMENSIONS

DIMENSIONS:in.[mm]

STANDARD:



OPTION M1:



OPTION M2: