ISO9001:2015

- STANDARD TR/ET, OPTIONAL USB2.0, RS-485 is AVAILABLE
- 30kV~70kV, 100 WATT MAX.
- ADJUSTABLE INTEGRATED FILAMENT SUPPLY
- OVERVOLTAGE, ARC & SHORT CIRCUIT PROTECTION
- VOLTAGE & CURRENT PROGRAMMING
- LOCAL and REMOTE CONTROL
- SAFETY INTERLOCK
- OEM CUSTOMIZATION AVAILABLE

INTRODUCTION

Wisman's XNA series x-ray generator is a compact, tight regulation and high stability high voltage power supply which is designed for all kinds of x-ray tubes. XNA offers output voltage ranges from 30kV to 70kV, and designed to DC filament to Ground, voltage 0~5Vdc adjustable, filament current ranges from 0.3A to 3.5A adjustable. Wisman's XNA x-ray generator provides local and remote control, with interface USB2.0, RS232 and RS485 option. Wisman's XNA series is with the over voltage, over current, arc and safety interlock function.

TYPICAL APPLICATIONS

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

XNA SELECTION TABLE

kV	mA	P(W)	MODEL	kV	mA	P(W)	MODEL	kV	mA	P(W)	MODEL	kV	mA	P(W)	MODEL
30	0.33	10	XNA30P10	50	0.20	10	XNA50P10	65	0.15	10	XNA65P10	50	2.00	50	XNA50P50-2
	1.00	30	XNA30P30		0.60	30	XNA50P30		0.46	30	XNA65P30		2.00	75	XNA50P75-2
	1.67	50	XNA30P50		1.00	50	XNA50P50		0.77	50	XNA65P50		4.00	75	XNA50P75-4
	2.17	65	XNA30P65		1.30	65	XNA50P65		1.00	65	XNA65P65	60	2.00	60	XNA60P60-2
	2.50	75	XNA30P75		1.50	75	XNA50P75		1.15	75	XNA65P75		2.00	75	XNA60P75-2
	3.33	100	XNA30P100		2.00	100	XNA50P100		1.54	100	XNA65P100		2.00	100	XNA60P100-2
40	0.25	10	XNA40P10	60	0.17	10	XNA60P10	70	0.14	10	XNA70P10	65	2.00	60	XNA65P65-2
	0.75	30	XNA40P30		0.50	30	XNA60P30		0.43	30	XNA70P30		2.00	75	XNA65P75-2
	1.25	50	XNA40P50		0.83	50	XNA60P50		0.71	50	XNA70P50		2.00	100	XNA65P100-2
	1.63	65	XNA40P65		1.08	65	XNA60P65		0.93	65	XNA70P65	70	2.00	65	XNA70P65-2
	1.88	75	XNA40P75		1.25	75	XNA60P75		1.07	75	XNA70P75		2.00	75	XNA70P75-2
	2.50	100	XNA40P100		1.67	100	XNA60P100		1.43	100	XNA70P100		2.00	100	XNA70P100-2

XNA SELECTION EXAMPLE

XNA	100	P	70 - 2	V10	D	XCC
Series Number	Maximum Output Voltage (kV)	Output Polarity P: Positive	Maximum Output Power (W) / Maximum Output Current (mA)	Option V10:+10Vdc Programming and Monitor V5:+5Vdc Programming and Monitor	Option D：TR/ET AB：RS485 USB:USB OPT: Optical Fiber	Option XCC: compatible XRW cable (only 50W)

D X-RAY GENERATOR

SPECIFICATIONS

PARAMETER		DESCRIBE		
Input Voltage		+24Vdc±10% ,5.0A maximum for 100W.		
Output Voltage		30kV, 40kV, 50kV, 60kV, 70kV.		
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 VoltageProgramming		0 ~+10Vdc proportional from 0 to full output voltage. Zin=10MWΩ		
Remote CurrentProgramming		0 ~+10Vdc proportional from 0 to full output current. Zin=10MΩ		
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 Line Regulation		± 0.01% for 10% change in input voltage.		
DC Filament Supply		Current: 0.3~3.5A, adjustable, Voltage: 0~5V,Preheat.		
Operating Temperature		0℃~+50℃.		
Storage Temperature		-40℃~+85℃.		
Cooling		Natural cooling.		
Humidity		20% to 85% RH, non-condensing.		
Dimensions	30~50kV unit	4.19″ H x 2.96″ W x8.00″ D (127.00mm x 75.00mm x203.50mm)	Weight	3kg.
	60~70kVunit	4.19″ H x 2.96″ W x9.00″ D (127.00mm x 75.00mm x229.00mm)	Weight	3.5kg.

XNA POWER INPUT/ FILAMENT OUTPUT CONNECTOR

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

ANALOG INTERFACE CONNECTION

I/O	SIGNAL	
1	Ground	Ground
2	Voltage Monitor	0~+10Vdc=0 to full scale, Zout=10kΩ
3	Current Monitor	0~+10Vdc=0 to full scale, Zout=10kΩ
4	Interlock Output	Alternate Interlock Configurations
5	+10 Vdc Reference	+10Vdc @ 1mA , maximum
6	Filament Monitor	1Vdc=1A，Zout=10kΩ
7	Voltage Program Input	0~+10Vdc=0 to full scale, Zin=10MΩ
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=10MΩ
11	Local Current Program	10 turn pot , screwdriver adjust
12	No Used(+24Vdc Out for Interlock)	Interlock Configuration+24Vdc
13	No Used(Interlock Coil)	Pin 12 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		

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

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

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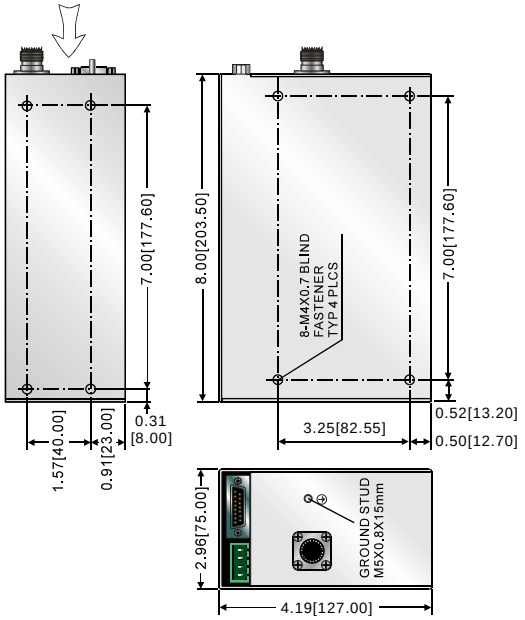
DIMENSIONS

Unit : in.[mm]

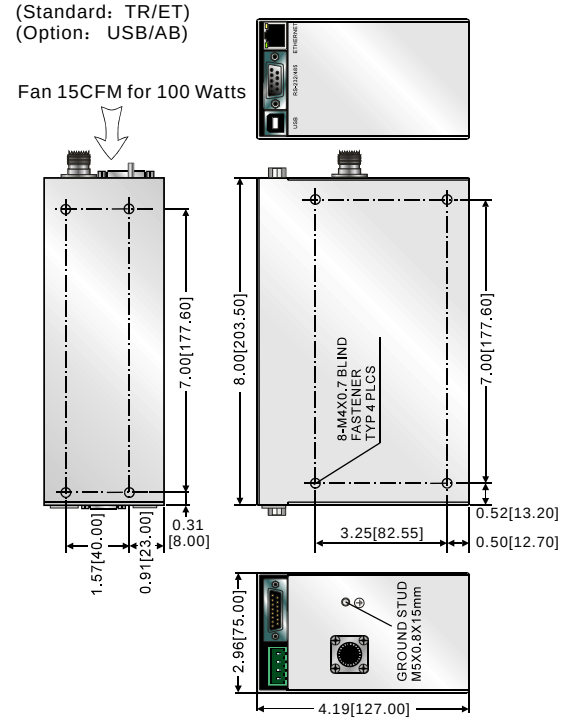
30kV~50kV unit:

Fan 15CFM for 100 Watts



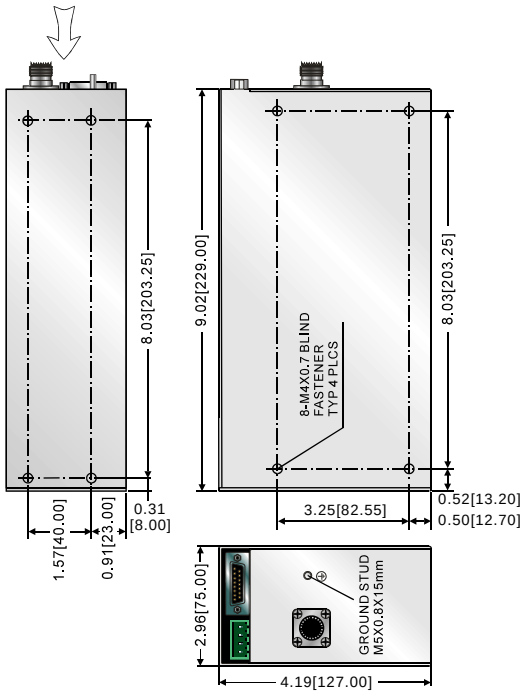
30kV~50kV unit:
(Standard：TR/ET)
(Option： USB/AB)

Fan 15CFM for 100 Watts



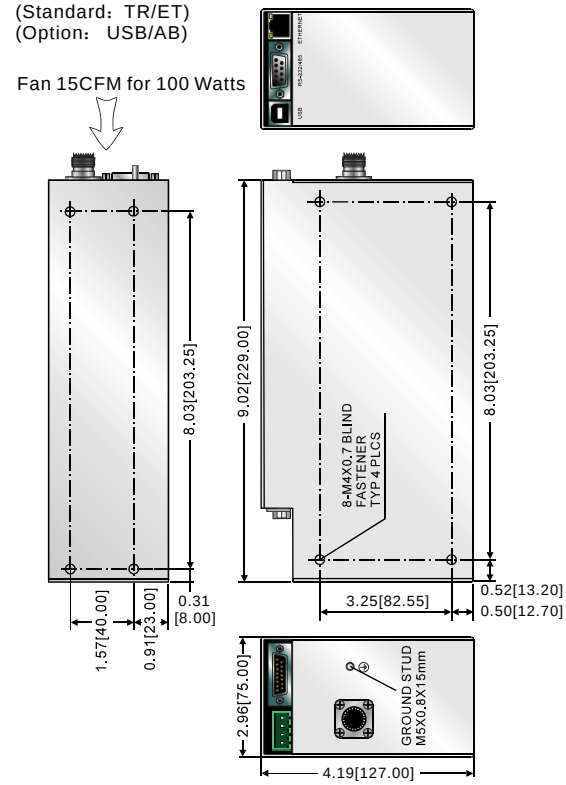
60kV~70kV unit

Fan 15CFM for 100 Watts



60kV~70kV unit:
(Standard：TR/ET)
(Option： USB/AB)

Fan 15CFM for 100 Watts



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