EIB POWER SUPPLY FOR FOCUSED ION BEAM

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

ISO9001:2015

APPLICATION SPECIFIC

- *Standard ET interface, RS-232 control*
- *Electron Microscopy,Electron Beam, Ion Beam Power System*
- *High Accuracy,High Stability,Low Ripple*
- *Integrated Single Chassis Solution*
- *Corona Free Operation*
- *Overvoltage,overcurrent,short circuit and Acr protection*
- *OEM customization available*

INTRODUCTION

Wisman's EIB Series is an integrated multiple output high voltage power supply specifically designed for focused ion beam applications. An additional Lens Chassis is available, providing the high performance fixed or reversible polarity high voltage lenses required to focus the Ion Beam.Alloutputs are offered with ultra-low output ripple, excellent regulation, stability, temperature coefficient, drift and accuracy specifications. Isolation and control of the respective floating sources is provided via Wisman's proprietary high voltage isolation techniques. Customer control of this integrated EIB power supply system is accomplished via a fiber optic interface. All high voltage safety interlocks areof a failsafe hardware based design.Consult factory for final configuration requirements.

TYPICAL APPLICATION

Scanning electron microscopy, Semiconductor analysis,Electron beam; Ion beam,Life science,Medical Chemical, Science experiment, Industry Application, Ion beam etching,Focused ion-beam lithography,Vacuum gun,

EIB SELECTION TABLE

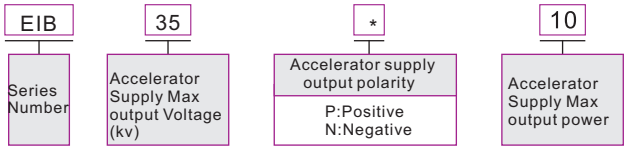
Extractor Supply				Filament Supply				Suppressor Supply			
Voltage(kv)	Current(uA)	Ripple	Stability	Voltage (v)	Current(A)	Ripple	Stability	Voltage(kv)	Current(uA)	Ripple	Stability
-15	400	＜100mVp-p	500㎷/10 hrs, after 2 hours' warm-up	5	5	10mAp-p	5mA/10min	±2	30	小于150mVp-p	500mv/10 hrs, after 2 hours' warm-up
16	1000	＜160mVp-p	1. 6v/10 hrs, after 2 hours' warm-up	3.3	3	10mAp-p	5mA/10min	-1	150	小于20mVp-p	100mv/10 hrs, after 2 hours' warm-up

Accelerator Supply				LensA Supply				LensB Supply			
Voltage(kv)	Current(uA)	Ripple	Stability	Voltage(kv)	Current(uA)	Ripple	Stability	Voltage(kv)	Current(uA)	Ripple	Stability
45	30	＜200mVp-p	1.5v/10 hrs, after 2 hours' warm-up	-40	30	150mVp-p	1v/10 hrs, after 2 hours' warm-up	25	30	＜150mVp-p	1v/10 hrs, after 2 hours' warm-up
35	30	＜200mVp-p	1.5v/10 hrs, after 2 hours' warm-up	30	30	100mVp-p	1v/10 hrs, after 2 hours' warm-up	30	30	＜200mVp-p	1v/10 hrs, after 2 hours' warm-up
-60	150	＜600mVp-p	6v/10 hrs, after 2 hours' warm-up								

Lens(optional)	
LensA	LensB
+30kV	+25kV/-15kV
-30kV	+25kV/-15kV

Lens(optional)	
LensA	LensB
+/-30kV	+/-30kV
+/-20kV	+/-30kV

EIB SELECTION EXAMPLE



Sales@wismanhv.com
www.wismanhv.com

SPECIFICTION

ISO9001:2015

PARAMETER		DESCRIPTION
Input		105Vac~240Vac,47~63Hz; +24Vac,±5%@5.5A.
Accelerator	Output	Output Voltage 0~+45kv,output Current0~30uA,Referenced to Ground
	Load Regulation	±0. 001%（no load to rated load）
	Line Regulation	＜100mA(Input Voltage change ±10%)
	Ripple	Pls turn to EIB selection table
	Temperature coefficient	25ppm/℃
	Stability	1.5v/10 hrs after 2 hrs' warm-up
Filament	Output	Output Voltage0~+5vdc,output Current 0~5A,Referenced to Accelerator Supply
	Load Regulation	±0. 1%（no load to rated load）
	Line Regulation	5mA(Input Voltage change ±10%)
	Temperature coefficient	＜200ppm/℃
	Ripple	Pls turn to EIB selection table
	Stability	5mA/10mins after 2 hrs' warm-up
Suppressor	Output	Output Voltage-2kV~+2kVdc,output Current 0~30uA,Referenced to Accelerator Supply
	Load Regulation	±0. 01%（no load to rated load）
	Line Regulation	100mA(Input Voltage change ±10%)
	Temperature coefficient	25ppm/℃。
	Ripple	Pls turn to EIB selection table
	Stability	500mV/10hrs after 2 hours' warm-up
Extractor	Output	Output Voltage0V~-15kV,Output current 0~400uA,Referenced to Accelerator Voltage.
	Load regulation	±0. 01%(no load to rated load)
	Line regulation	100mV（Input voltage change±10%)
	Ripple	Pls turn to EIB selection table
	Temperature coefficient	25ppm/℃
	Stability	500mV/10hrs after 2 hours' warm-up
LensA	Output	Output Voltage0~-40KVdc,Output current 0~30uA,Referenced to Ground
	Load regulation	±0. 01%(no load to rated load)
	Line regulation	100mV（Input Voltage change ±10%)
	Ripple	Pls turn to EIB selection table
	Temperature coefficient	25ppm/℃
	Stability	1V/10 hrs after 2 hours's warm-up
Lens B	Output	Output Voltage0v~+25KV,Output current 0~30uA,Referenced to Ground
	Load regulation	±0. 005%（no Load to rated load)
	Line regulation	100mV(Input Voltage change±10%)
	Ripple	Pls turn to EIB selection table
	Temperature coefficient	25ppm/℃。
	Stability	1V/10 hrs after 2 hours' warm-up
Storage temperature		-30℃~+70℃。
Cooling		Natural convection
Humility		10%~90%RH,no condensing
Weight		20kg

APPLICATION SPECIFIC

RS-232 DIGITAL INTERFACE

J3	SIGNAL	J3	SIGNAL
1	N/C	6	N/C
2	TXD/Transmit	7	N/C
3	RXD/Receive	8	N/C
4	N/C	9	N/C
5	GND		

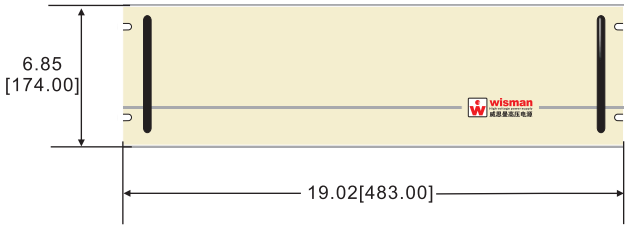
ETHERNET DIGITAL INTERFACE

J5	SIGNAL	J5	SIGNAL
1	RX+（Receive+）	6	TX-(Transmit-)
2	RX-(Receive-)	7	N/C
3	TX+(Transmit+)	8	N/C
4	N/C	9	N/C
5	GND		

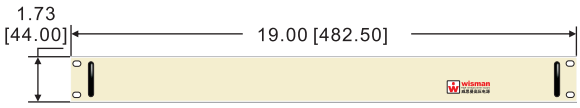
EIB DIMENSION

Unit:inch(mm)

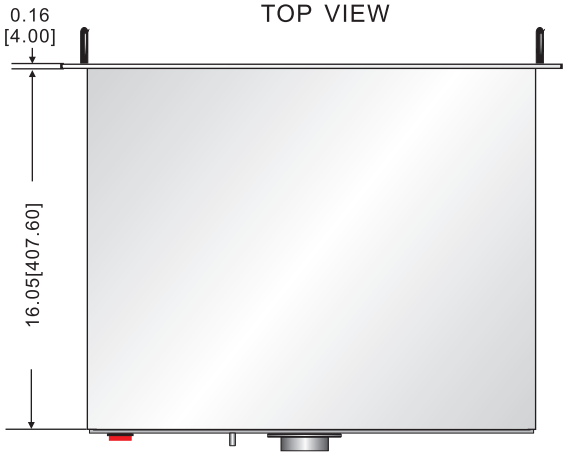
FRONT VIEW



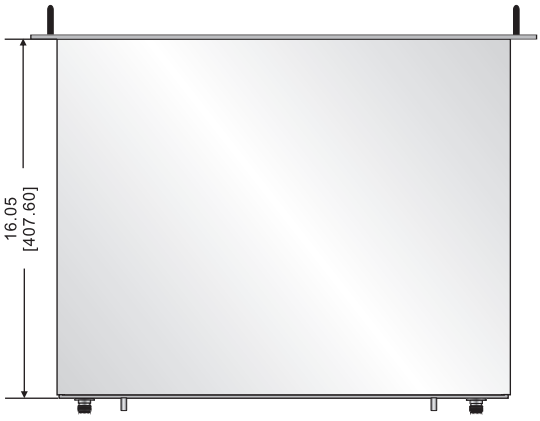
FRONT VIEW



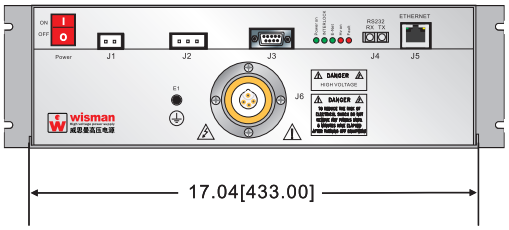
TOP VIEW



TOP VIEW



BACK VIEW



BACK VIEW

Sales@wismanhv.com
www.wismanhv.com