DF

1kV~120kV
3kW、4kW、6.4kW
RACK MOUNT

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

ISO9001:2015

RACK MOUNT

- 6.4kW'S IN SINGLE 4U (6.93") CHASSIS
- OUTPUT VOLTAGE FROM 1kV~120kV
- CURRENT AND VOLTAGE PROGRAMMING
- ARC AND SHORT CIRCUIT PROTECTED
- STANDARD ET INTERFACE, RS-232 DIGITAL INTERFACE
- OEM CUSTOMIZATION AVAILABLE

INTRODUCTION

Wisman's DF series are available in either positive or negative polarity and in a variety of output ranges from 1kV to 120kV. The DF series feature a front panel for local control and a rear panel analog interface for remote control. Standard network and RS-232 digital interfaces make the DF series easy to design into your system.
DF series adopts IGBT inverter, which is suitable for all kinds of harsh applications like semiconductor processing and vacuum deposition. Most operational functions of Wisman's DF series can be configured by the user to meet their particular requirements

TYPICAL APPLICATIONS

Gas pedals, Capacitor charging, Electron beams, Ion beams, Ion implantation, Semiconductor manufacturing, Photolithography, Aging of electronic comonents, High-voltage insulation testing, Static electricity applications, Lasers, High-power RF emitters, X-ray systemps, Scientific experiments, Industrial applications. Electrostatic-applications, High power RF transmitters, X-ray systems, Scientific experiments, Industrial applications.

DF SELECTION TABLE

kV	mA	P(kW)	MODEL	kV	mA	P(kW)	MODEL	kV	mA	P(kW)	MODEL	kV	mA	P(kW)	MODEL	kV	mA	P(kW)	MODEL
1	3000	3	DF1*3	6	500	3	DF6*3	30	100	3	DF30*3	70	43	3	DF70*3	120	25	3	DF120*3
	4000	4	DF1*4		666	4	DF6*4		133	4	DF30*4		57	4	DF70*4		33	4	DF120*4
	6400	6.4	DF1*6.4		1066	6.4	DF6*6.4		213	6.4	DF30*6.4		91	6.4	DF70*6.4		53	6.4	DF120*6.4
2	1500	3	DF2*3	10	300	3	DF10*3	40	75	3	DF40*3	80	37	3	DF80*3				
	2000	4	DF2*4		400	4	DF10*4		100	4	DF40*4		50	4	DF80*4				
	3200	6.4	DF2*6.4		640	6.4	DF10*6.4		160	6.4	DF40*6.4		80	6.4	DF80*6.4				
3	1000	3	DF3*3	15	200	3	DF15*3	50	60	3	DF50*3	90	33	3	DF90*3				
	1333	4	DF3*4		266	4	DF15*4		80	4	DF50*4		44	4	DF90*4				
	2133	6.4	DF3*6.4		426	6.4	DF15*6.4		128	6.4	DF50*6.4		71	6.4	DF90*6.4				
4	750	3	DF4*3	20	150	3	DF20*3	60	50	3	DF60*3	100	30	3	DF100*3				
	1000	4	DF4*4		200	4	DF20*4		66	4	DF60*4		40	4	DF100*4				
	1600	6.4	DF4*6.4		320	6.4	DF20*6.4		106	6.4	DF60*6.4		64	6.4	DF100*6.4				

DF SELECTION TABLE

DF	120	*	6.4
Series Number	Maximum output Voltage (kV)	Output Polarity P:Positive N:Negative	Maximum Output Power (kW)

OPTION			
3PH220	180~264Vac, threephase	BFP	Front panel
AX	Arc protection	AOL	Adjustableoverload Hvoff
AQX	Arc Quench time	LX	Unshield cable optional
ARX	Arc Re-ramp time	HST	High stability
APT	AdjustableoverpowerHVoff		

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020219

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DF SPECIFICATIONS

PARAMETER	DESCRIBE
Input Voltage	Standard: 180-264Vac 50/60Hz, single phase Optional:180-264Vac, 50/60Hz, three phase(3PH220)
Input Current	Standard: 180-264Vac, single phase 38 amps, maximum Optional:180-264Vac, three phase; 17 amps, maximum
Output Voltage	Output range from 1kV to 120kV Multiple sizes, either positive or negative polarity.
Stability	0.02% hr. after 1 hour warm-up
Ripple	0.1% p-p +1Vrms
Voltage/Current Monitor	0~+10Vdc corresponds to 0 to maximum output
Voltage Local Programming	Internal potentiometer to set voltage from 0 to maximum output voltage
Current Local Programming	Internal potentiometer to set current from 0 to maximum output current
Voltage Remote Programming	0~+10Vdc . proportional from 0 to maximum output
Current Remote Programming	0~+10Vdc . proportional from 0 to maximum output current
Voltage Load Regulation	0.05%+500mV (no load to full load change)
Voltage Line Regulation	0.05%+500mV (input voltage line change±10%)
Current Load Regulation	0.05%±100uA (no load to full load change)
Current Line Regulation	0.05% (input voltage line change±10%)
Temperature Coefficient	25ppm/℃.Higher stability can be customized （15ppm/℃）
Operating Temperature	0℃~+40℃
Storage Temperature	-40℃~+85℃.
Humidity	10%~90% Rh, non-condensing
Cooling	Forced air; inlet through side panels, outlet at rear panel.
Metering	Digital voltage and current meters, accurate to within 1%.
HV Output Connector	Detachable10''(3.05m)shield high cable cables
Input/Output Connector	Db50，contain control and monitor signal
Dimensions	5.20″ (3U)H X 19″ W X 24″ D (132mm x 482.5mm x 610mm)
Weight	40kg

RS-232DIGITAL INTERFACE D

JB3	SIGNAL
1	N/C
2	TXD/Transmit Data
3	RXD/Receive Data
4	N/C
5	SGND
6	N/C
7	N/C
8	N/C
9	N/C

ETHERNET DIGITAL INTERFACE D

JB2	端口信息	
1	RX+	Receive Data +
2	RX-	Receive Data -
3	TX+	Transmit Data +
4	N/C	N/C
5	N/C	N/C
6	TX-	Transmit Data -
7	N/C	N/C
8	N/C	N/C

DF ANALOG INTERFACE CONNCTION

JB1	SIGNAL	PARAMETERS
1	Power Supply Common	Power Supply Ground
2	Reset/HV Inhibit	Normally open, Low = Reset/Inhibit
3	External Interlock	+24Vdc @ open, <25mA @ closed
4	External Interlock Return	Return for External Interlock
5	mA Test Point	0~+10Vdc=0~100% rated output, Zout=1kΩ, 1%
6	kV Test Point	0~+10Vdc=0~100% rated output, Zout=1kΩ, 1%
7	+10Vdc Reference Output	+10Vdc @ 1mA
8	mA Program Input	0~+10Vdc = 0~100% rated output, Zin=10MΩ
9	Local mA Program Output	0~+10Vdc = 0~100% rated output, front panel pot
10	kV Program Input	0~+10Vdc = 0~100% rated output, Zin=10MΩ
11	Local kV Program Output	0~+10Vdc = 0~100% rated output, front panel pot
12	Remote Power On Output	+24Vdc @ open, <25mA @ closed
13	Remote Power On Return	Return for Remote Power On
14	Remote HV Off	+24Vdc @ open, <25mA @ closed, connect to pin15 for front panel operation
15	Remote HV Off/On Common	HV On/Off Common
16	Remote HV On	+24Vdc @ open, <25mA @ closed, connect to pin15 for front panel operation
17	HV Off Indicator	Low = HV Off
18	HV On Indicator	Low = HV On
19	Power Supply Common	Supply Ground
20	+24Vdc Output	+24Vdc @ 100mA, maximum
21	Voltage Mode Status	Open collector, low = voltage mode
22	Current Mode Status	Open collector, low = current mode
23	Power Mode Status	Open collector, low = power mode (selectable)
24	Interlock Closed Status	Open collector, low = interlock closure
25	Spare	Spare
26	Spare	Spare
27	Spare	Spare
28	Spare	Spare
29	Over Power Fault	Open Collector, Low = Over Power Alarm
30	Over Voltage Fault	Open collector, low = overvoltage alarm
31	Over Current Fault	Open collector, low = overcurrent alarm
32	Over Current Fault	Open Collector, Low = System Alarm
33	RGLT Error Fault	Open collector, low = adjustment error alarm
34	Arc	Open Collector, Low = Arc Pull Alarm
35	Over Temp Fault	Open collector, low = over temperature alarm
36	AC Fault	Open Collector, Low = AC Alarm
37	Spare	Spare
38	Spare	Spare
39	Spare	Spare
40	Pull Voltage	Option connect to pin 44 or pin 45
41	Spare	Spare
42	Spare	Spare
43	Spare	Spare
44	+5VdcOutput	+5Vdc @ 100mA,maximum
45	+15Vdc Output	+15Vdc @ 100mA, maximum
46	-15Vdc Output	-15Vdc @ 10mA, maximum
47	Spare	Spare
48	Spare	Spare
49	Spare	Spare
50	Power Supply Common	Power Supply Ground

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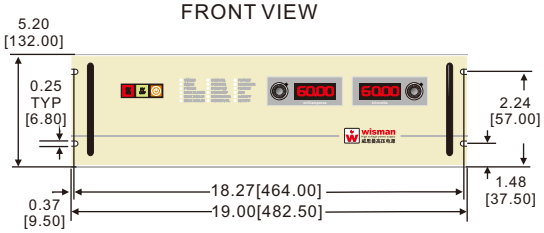
D F MACHINE DIMENSIONS

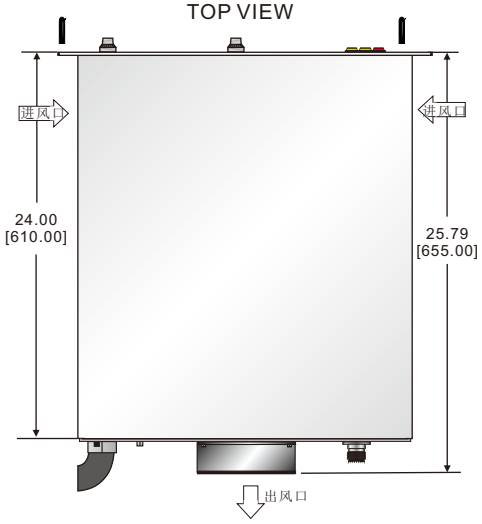
3kW,4kW:1kV-70kV

Unit: inches [millimeters]

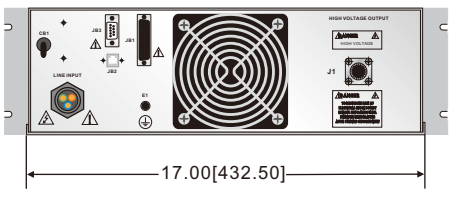
FRONT VIEW



TOP VIEW



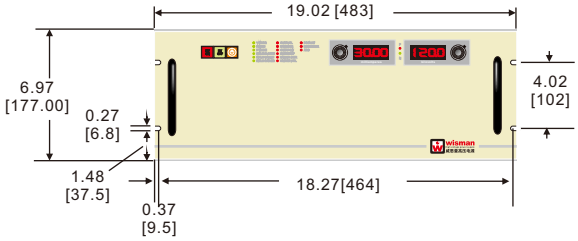
BACK VIEW



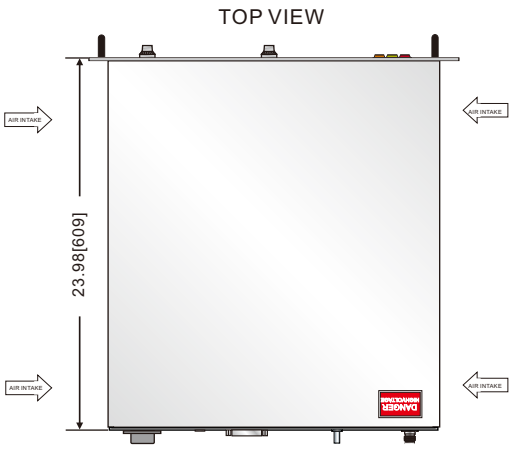
3kW,4kW:80kV-120kV
6.4kW:1kV-120kV

Unit: inches [millimeters]

FRONT VIEW



TOP VIEW



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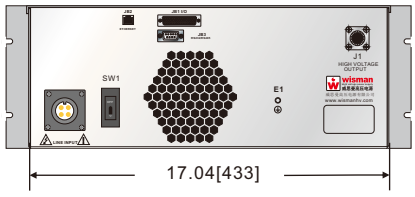

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