



- RS-232,RS-485 CONTROL OPTIONAL
- 60kV,2mA,100W MAXIMUM
- 70kV,2mA,100W MAXIMUM
- OVERVOLTAGE, ARC AND SHORT-CIRCUIT PROTECTION
- VOLTAGE PROGRAMMING, CURRENT PROGRAMMING AVAILABLE
- LOCAL AND REMOTE CONTROL
- SAFETY INTERLOCK FUNCTION
- OEM CUSTOMIZATION AVAILABLE



INTRODUCTION

Wisman's MRN series has perfect performance, with maximum voltage up to 70kV. MRN series has the overvoltage, short-circuit protection and safety interlock function, providing R-232, RS-485 interface optional.

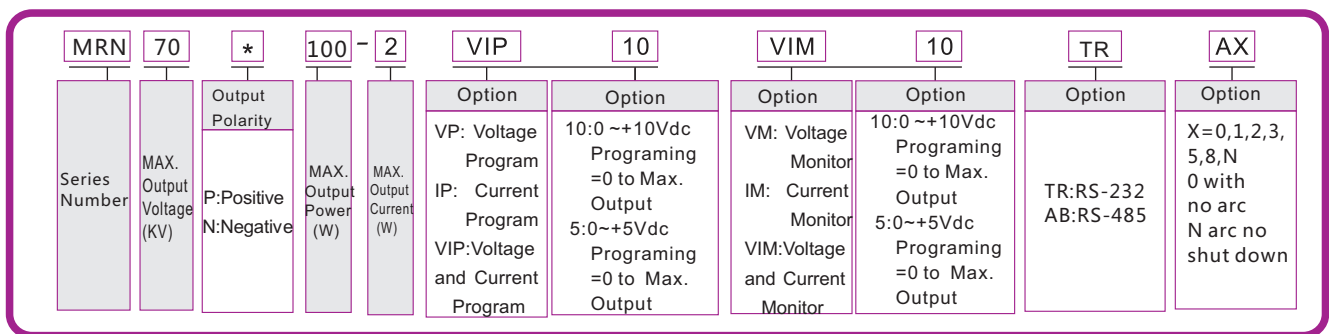
APPLICATION

ESD, Electrophoresis, DNA sequencing, IBM, EBM, electrostatic chuck, High voltage bias, Withstand voltage testing, Pulsed power supply Electrostatic spinning, Capacitor charging, Semiconductor testing, Electronic component aging, Power cable testing, Gas chromatography, Blood analysis, Cathode X-ray tube, SPECT scanner, PET scanner, Life science, Medical industrial, Science experiment and Industrial applications.

MARN SELECTION TABLE

kV	mA	P(W)	MODEL	kV	mA	P(W)	MODEL	kV	mA	P(W)	MODEL	kV	mA	P(W)	MODEL	
40	0.25	10	MRN40*10	60	0.17	10	MRN60*10	70	0.14	10	MRN70*10	60	1.00	60	MRN60*60	
	0.75	30	MRN40*30		0.50	30	MRN60*30		0.43	30	MRN70*30		2.00	60	MRN60*60-2	
	1.25	50	MRN40*50		0.83	50	MRN60*50		0.71	50	MRN70*50		2.00	75	MRN60*75-2	
	1.63	65	MRN40*65		1.08	65	MRN60*65		0.93	65	MRN70*65		2.00	100	MRN60*100-2	
	1.88	75	MRN40*75		1.25	75	MRN60*75		1.00	70	MRN70*70		2.00	65	MRN65*65-2	
	2.50	100	MRN40*100		1.67	100	MRN60*100		1.43	100	MRN70*100		2.00	75	MRN65*75-2	
50	0.20	10	MRN50*10	65	0.15	10	MRN65*10	50	2.00	50	MRN50*50-2	70	2.00	100	MRN65*100-2	
	0.60	30	MRN50*30		0.46	30	MRN65*30		2.00	75	MRN50*75-2		2.00	65	MRN70*65-2	
	1.00	50	MRN50*50		0.77	50	MRN65*50		4.00	75	MRN50*75-4		2.00	75	MRN70*75-2	
	1.30	65	MRN50*65		1.00	65	MRN65*65						2.00	100	MRN70*100-2	
	1.50	75	MRN50*75		1.15	75	MRN65*75									
	2.00	100	MRN50*100		1.54	100	MRN65*100									

MARN SELECTION EXAMPLE





FEATURES

ISO9001:2015

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HIGH VOLTAGE MODULES

PARAMETERS		DESCRIBE		
Input		+24Vdc± 10%,5.0A at maximum		
Output		3kV,5kV,10kV,15kV,20kV,25kV,30kV optional 6W~100W optional		
Stability		<0.01% per 8 hours after half an hour' s warm up.		
Temperature coefficient		≤25ppm/°C。		
Ripple		≤0.1%Vp-p。(Lower ripple can be customized.)		
Voltage current monitor		0~+10Vdc=0~100% rated output,Zout=10kΩ, accuracy:±1%		
Voltage local control		Internal potentiometer set output voltage from 0~100% rated output.		
Voltage remote control		External 0~+10Vdc control signal set output voltage from 0~100% rated output,Zin=10MΩ.		
Voltage load regulation		0.01%(no load to full load)		
Voltage line regulation		±0.01%(Input Voltage line changes ±10%)		
Current load regulation		0.01%(no load to full load)		
Current line regulation		±0.01%(Input Voltage line changes ±10%)		
Operation temperature		0°C ~ +40°C。		
Storage temperature		-40°C ~ +85°C。		
Cooling		0~60W:convection cooling;60W~100W:Fan assisted		
Humidity		20%~85%RH,no condensing		
Dimensions	1kV~60kV	5.00" H x 2.95" W x 8.01" D (127.0mm x 75.0mm x 203.5mm)。	Weight	3.0kg。
	1kV~60kV(USB/RS-232/RS-485)	5.71" H x 2.95" W x 8.01" D (145.0mm x 75.0mm x 203.5mm)。		3.05kg
	60kV~70kV	5.00" H x 2.95" W x 9.02" D (127.0mm x 75.0mm x 229.0mm)。		3.5kg。
	60kV~70kV(USB/RS-232/RS-485)	5.75" H x 2.95" W x 9.02" D (146.0mm x 75.0mm x 229.0mm)。		3.55kg

MRN POWER INPUT INTERFACE

PIN	SIGNAL	
1	+24Vdc input	+24Vdc@8A,maximum
2	GND	GND

RS-232/RS-485 DIGITAL INTERFACE^D

PIN	SIGNAL	PIN	SIGNAL
1	N/C	6	N/C
2	TXD/Transmit data	7	RS-485B optional
3	RXD/ Receive data	8	N/C
4	N/C	9	RS-485A optional
5	Gnd		

MRN ANALOG INTERFACE CONNECTOR

I/O	SIGNAL	
1	Gnd	Gnd
2	Voltage Monitor	0~+10Vdc=0 to full scale,Zout=10kΩ
3	Current Monitor	0~+10Vdc=0 to full scale,Zout=10kΩ
4	External Interlock	Connect to pin 1 to HV enable supply
5	+10Vdc reference	1mA,+10Vdc at maximum
6	N/C	N/C
7	Voltage remote control input	0~+10Vdc=0 to full scale,Zout=10MΩ
8	Voltage local control output	0~+10Vdc, potentiometer adjustment
9	N/C	N/C
10	Current remote control input	0~+10Vdc=0 to full scale,Zout=10MΩ
11	Current local control output	0~+10Vdc, potentiometer adjustment
12	Interlock output	Interlock output+12Vdc
13	Interlock coil	Connect to pin 12 to HV enable supply
14	N/C	N/C
15	Gnd	Gnd

MRN LED INDICATORS^D

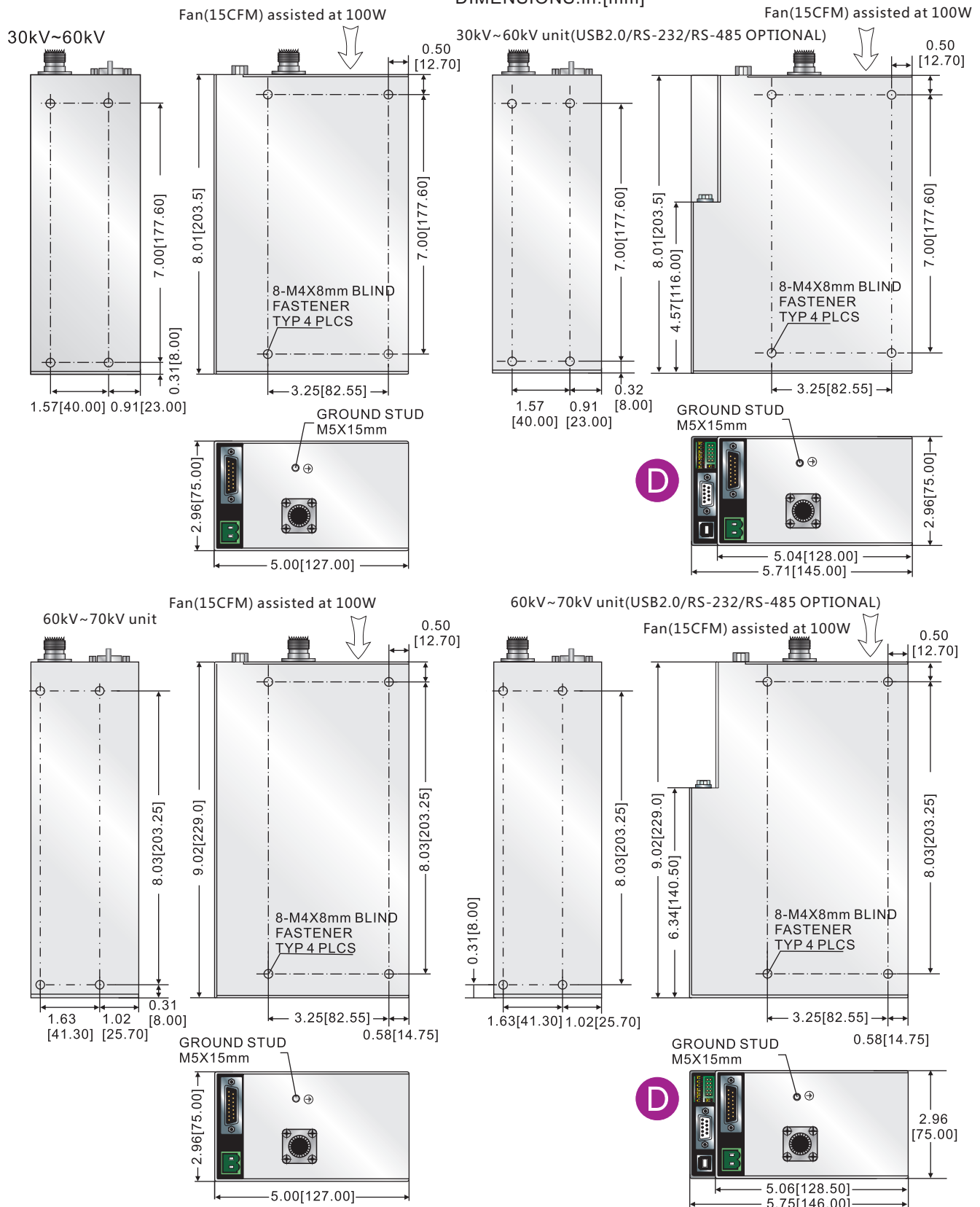
PIN	SIGNAL	PIN	SIGNAL
1	POW Power on	5	UC Low current occurs
2	ARC Arc fault occurs	6	OV Over voltage occurs
3	OT Over temperature occurs	7	UV Low voltage occurs
4	OC Over current occurs	8	HV HV ON



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DIMENSIONS

DIMENSIONS:in.[mm]



HIGH VOLTAGE MODULES