



- **OPTIONAL USB2.0, RS-232 OR RS-422 IS AVAILABLE.**
- **50KV AT 2 mA. 100 WATT MAX.**
- **65KV AT 2 mA. 100 WATT MAX.**
- **OVERVOLTAGE, ARC & SHORT CIRCUIT PROTECTION**
- **VOLTAGE & CURRENT PROGRAMMING.**
- **LOCAL AND REMOTE CONTROL.**
- **SAFETY INTERLOCK.**
- **OEM CUSTOMIZATION AVAILABLE.**

INTRODUCTION

Wisman's MRW Series modular high voltage power supplies offer positive or negative output voltages from 25KV to 65kV. High voltage can be linearly ramped up. An optional USB 2.0, RS-232 or RS-422 is available. The MRW incorporates local and remote programming, safety interlock, short-circuit and overload protection.

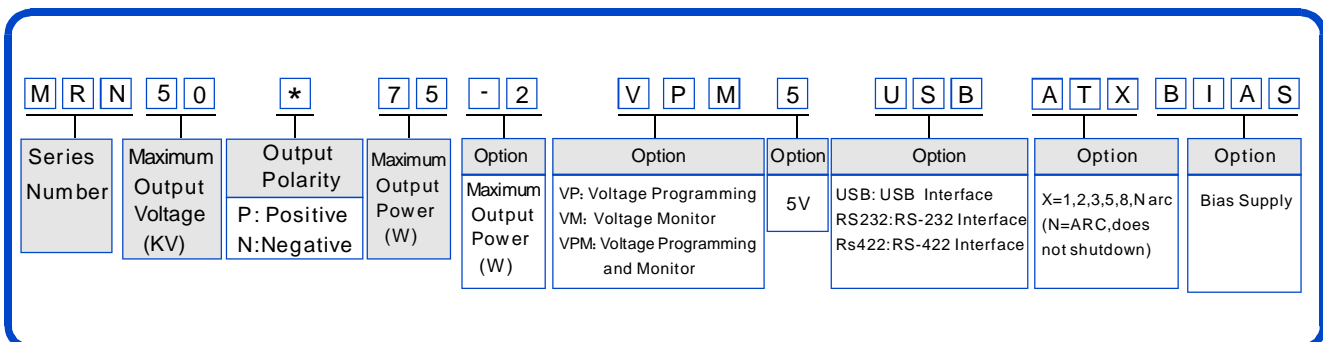
TYPICAL APPLICATIONS

High Voltage Testing, Electron Beam / Ion Beam, MASS Spectrometry, Electrostatics Chuck (ESC), PMT, Semiconductor Testing, Radiation counter, Provides Power To The Pulse Power, Capacitor Charging, Electronic Component Aging, Medical, Chemical Applications, Science, Laboratory Applications, Industrial Applications.

MRW SELECTION TABLE

| KV | mA | P(W) | MODEL | KV | mA | P(W) | MODEL | KV | mA | P(W) | MODEL | KV | mA | P(W) | MODEL |
|----|------|------|-----------|----|------|------|-----------|----|------|------|--------------|----|------|------|-------------|
| 25 | 2.00 | 50 | MRW25*50 | 50 | 1.00 | 50 | MRW50*50 | 50 | 2.00 | 50 | MRW 50P50-2 | 65 | 1.00 | 65 | MRW 65P65 |
| | 3.00 | 75 | MRW25*75 | | 1.50 | 75 | MRW50*75 | | 2.00 | 75 | MRW 50P75-2 | | 2.00 | 65 | MRW 65P65-2 |
| | 4.00 | 100 | MRW25*100 | | 2.00 | 100 | MRW50*75 | | 1.00 | 60 | MRW 60P60 | | 2.00 | 75 | MRW65P75-2 |
| 30 | 1.67 | 50 | MRW30*50 | 65 | 0.77 | 50 | MRW65*50 | 60 | 2.00 | 60 | MRW 60P60-2 | | 2.00 | 100 | MRW65P100-2 |
| | 2.50 | 75 | MRW30*75 | | 1.15 | 75 | MRW65*75 | | 2.00 | 75 | MRW 60P75-2 | | | | |
| | 3.33 | 100 | MRW30*100 | | 1.54 | 100 | MRW65*100 | | 2.00 | 100 | MRW 60P100-2 | | | | |
| | | | | | | | | | | | | | | | |

MRW SELECTION EXAMPLE





SPECIFICATIONS

ISO9001:2008

| PARAMETER | DESCRIBE |
|-------------------------|--|
| Input Voltage | +24Vdc±10% ,5.0A maximum for 70W, 8.0A maximum for 100W. |
| Output Voltage | 25KV, 30KV, 50KV, 60KV, 65KV |
| Stability | 0.02% per 8 hours after 1/2 hour warm-up. |
| Temperature Coefficient | ≤25ppm/°C. |
| Ripple | 0.1% p-p of output voltage. |
| Voltage/Current Monitor | 0V to +10Vdc , Zout=1KΩ , Accuracy: ±1%. |
| Local Voltage control | Internal multi-turn potentiometer to set voltage from 0 to full output voltage. |
| Local Current control | Internal potentiometer to set beam current between 0 to full output current. |
| Remote Voltage control | 0 to +10Vdc proportional from 0 to full output voltage. |
| Remote Current control | 0 to +10Vdc proportional from 0 to full output current. |
| Voltage Load Regulation | Load: 0.01% of output voltage no load to full load. |
| Voltage Line Regulation | Line: ±0.01% for ±10% change in input voltage. |
| Curren Load Regulation | Load: 0.01% of output current from 0 to rated voltage. |
| Curren Load Regulation | Line: ±0.01% for ±10% change in input voltage. |
| Operating Temperature | 0°C to +50°C. |
| Storage Temperature | -40°C to +85°C. |
| Cooling | Free convection for the 50W unit and 75W unit, Fan (15CFM) assisted for 100W unit. |
| Humidity | 20% to 85% RH, non-condensing. |
| Dimensions | 5.51" H x 3.35" W x 9.45" D (140.0mm x 85.0mm x 240.0mm) |
| Weight | 3.65kg |

MRW POWER INPUT/ FILAMENT OUTPUT CONNECTOR

| SINGAL | | SINGAL | |
|--------|------|------------------|--|
| J2 | J2-1 | +24V Input | |
| | J2-2 | Ground | |
| J4 | J4-1 | Ground | |
| | J4-2 | Voltage Monitor | |
| | J4-3 | Current Monitor | |
| | J4-4 | Interlock Output | |

ANALOG INTERFACE CONNCTION

| J5 | SINGAL | J5 | SINGAL |
|----|-----------------------|----|-----------------------|
| 1 | +10Vdc Reference | 6 | Current Program Input |
| 2 | Filament Monitor | 7 | Local Current Program |
| 3 | Voltage Program Input | 8 | Interlock Output |
| 4 | Local Voltage Program | 8 | Signal Ground |
| 5 | Spare | | |

RS-232/RS-422 DIGITAL INTERFACE

| SINGAL | | SINGAL | |
|--------|-------------------|--------|------------------|
| 1 | N/C | 6 | RA+/RA+ Receive |
| 2 | TXD/Transmit Data | 7 | RB-/RB- Receive |
| 3 | RXD/Receive Data | 8 | TB-/TB- Transmit |
| 4 | N/C | 9 | TA+/TA+ Transmit |
| 5 | SGND | | |

MRW LED INDICATORS

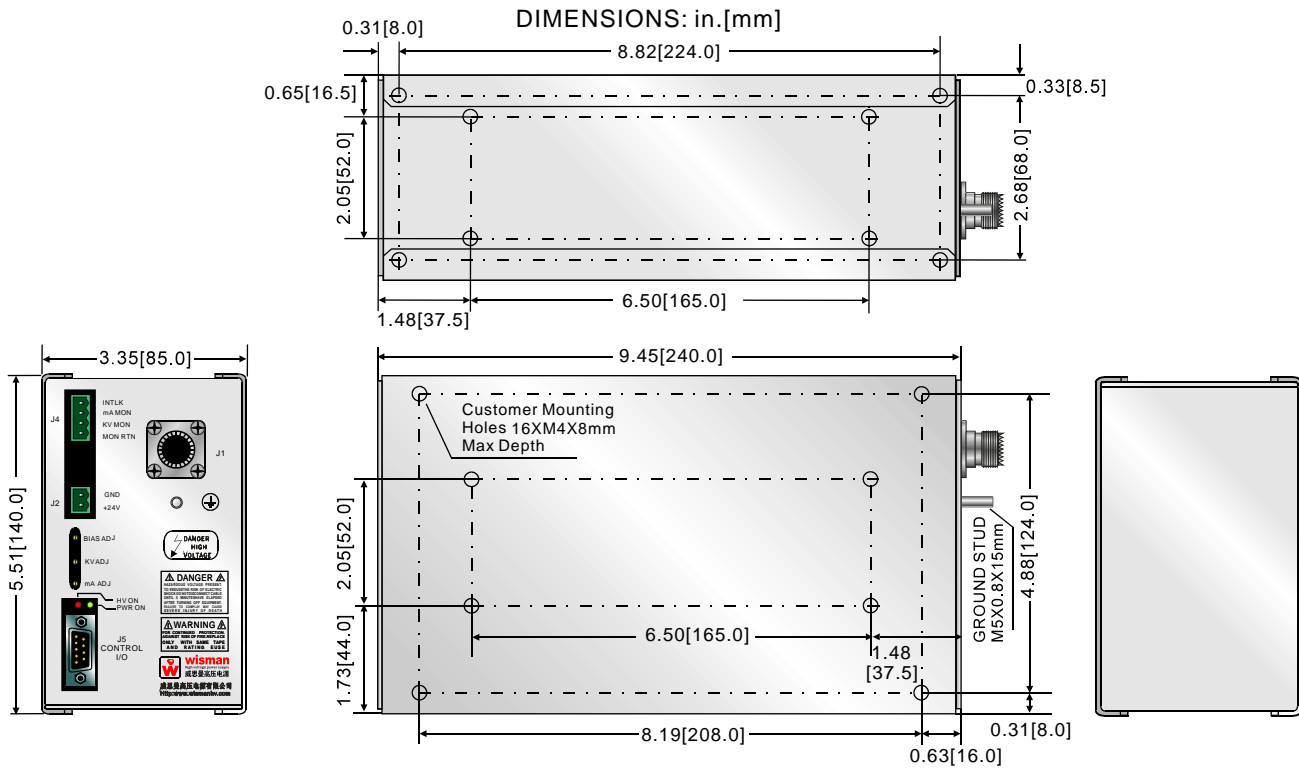
| LED | SINGAL | LED | SINGAL |
|-----|----------------------------|-----|------------------------|
| 1 | POW Power ON | 5 | UC Low current occurs |
| 2 | ARC Arc fault occurs | 6 | OV Over voltage occurs |
| 3 | OT Over temperature occurs | 7 | UV Low voltage occurs |
| 4 | OC Over current occurs | 8 | HV HV ON |

USB DIGITAL INTERFACE

| USB | SINGAL | USB | SINGAL |
|-----|------------|-----|------------|
| 1 | VBUS +5Ddc | 3 | D+ Data+ |
| 2 | D- +5Ddc | 4 | GND Ground |

DIMENSIONS

B
MODULES



OPTION: USB/RS232/RS422:

