



# MVPN Product Spec Sheet

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## MVPN

## MAC VICTOR POWER NETWORK

THOR SYSTEMS' MVPN (Mac Victor Power Network) combines a UL1778 Listed centralized isolated power network with an integral UL1778 Listed on-line-UPS. The MVPN provides clean and continuous power (battery backup) for critical electronics such as Points of Sale, Back Office, Network Rack, and Telephone/Security panels.

### GENERAL INFORMATION

**Agency Listings:** UL1778 2<sup>nd</sup> Edition  
**Application:** Commercial  
**Warranty:** 2 Years

### ELECTRICAL SPECIFICATIONS (See Page 2)

**Output Full Load Capacity:** 1.5, 2.0, 3.0 kVA  
**Input Voltage:** 120Vac, 50/60 Hz, Single-Phase, 2W + Ground  
**Output Voltage:** 120Vac, Single-Phase, 2W + Ground  
**Dry Contacts:** Input/output power monitoring for site automation

### SERVICE CONDITIONS

**Storage Temperature Range:** -55° to +85° C (-67° to +185° F)  
**Operating Temperature Range:** 0° to 40° C (32° to 104° F)  
**Relative Humidity:** 0% - 95%, Non-condensing  
**Operating Altitude:** 0 Feet to 12,000 Feet  
**System Audible Noise Level:** Less than ANSI C89 standard for transformers

### MECHANICAL SPECIFICATIONS

**Enclosure:** NEMA 1  
**Size:** 19"W x 14"H x 10"D (without UPS)  
**Cable Landing:** (22); ½" and ¾" EMT Knockouts  
**Service Access:** Full Width Hinged Front Cover  
**Ventilation:** Naturally Convection-Cooled

### SURGE SPECIFICATIONS

**kA Per Mode:** 40kA Input and 40kA Output (with EMI/RFI Filtering)  
**Technology:** Hybrid Design  
**Isolation Transformer:** Low Impedance, Electrostatically Shielded; 115°C Max Temp Rise; 180°C Insulation Class; All Copper Windings; 3.3% to 4.4% Impedance; Common Mode Noise Attenuation; Full Load Efficiency 94% to 96%  
**Bypass Switch:** Make Before Break, rated for 120Vac and 20Amps

### PRODUCT OPTIONS

- Surge Counter (8 User Settable Levels of Sensitivity (340A to 900A range) with Audible Alarm Display)
- 5<sup>th</sup> Circuit Breaker Pre-wired to Receptacles on End Wall
- Emergency Shutdown
- Remote Power Off

### PRODUCT ACCESSORIES

- **MVPS-515-12** : Isolated Ground Receptacle Power Strip, 12" Long (4) IG Outlets
- **MVPS-515-20**: Isolated Ground Receptacle Power Strip, 20" Long (10) IG Outlets with 4' of Seal-TiteFlex Conduit
- **GT-2000T**: On-line UPS, 2.0 kVA    **GT-3000T**: On-line UPS, 3.0 kVA
- **GT-SNMP**: SNMP Communications Cable

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Mac Victor Power Network



### UPS FEATURES

#### UPS Battery Back-up:

- True on-line dual conversion technology
- Voltage and frequency regulation
- 10-Minute design load; 15-Minute actual load

#### Options:

- SNMP Network Card for UPS data access via internet
- Extended Battery (additional 30 Minutes, approx.)

### MVPN SYSTEM FEATURES

- Increases revenues with continuous operation for all network components of the critical electronic systems during electrical power failures and other power quality disturbances.
- Reduces both operating and maintenance expenses from downtime due to software lockups, data losses, and hardware failures
- Eliminates all remotely located plug-in UPS, surge strips, and filters
- Integrated circuit breakers for up to 5 branch circuits with optional integrated IG receptacles can reduce new construction costs by eliminating the need for dedicated circuit breaker panel.
- Wall-mounted design saves vital floor space and reduces the need for under counter/desktop space
- UPS Bypass Switch (make before break) provides seamless power during UPS maintenance
- Input and output power pilot lights provide for status indication and easy troubleshooting

THOR SYSTEMS continuously strives to improve its products. Occasionally there may be changes in features or optional equipment. All information contained in this printed material is based on the latest product information available at the time of printing. THOR SYSTEMS reserves the right to implement changes, without notice, in specifications and equipment services.



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### MVPN ELECTRICAL SPECIFICATIONS

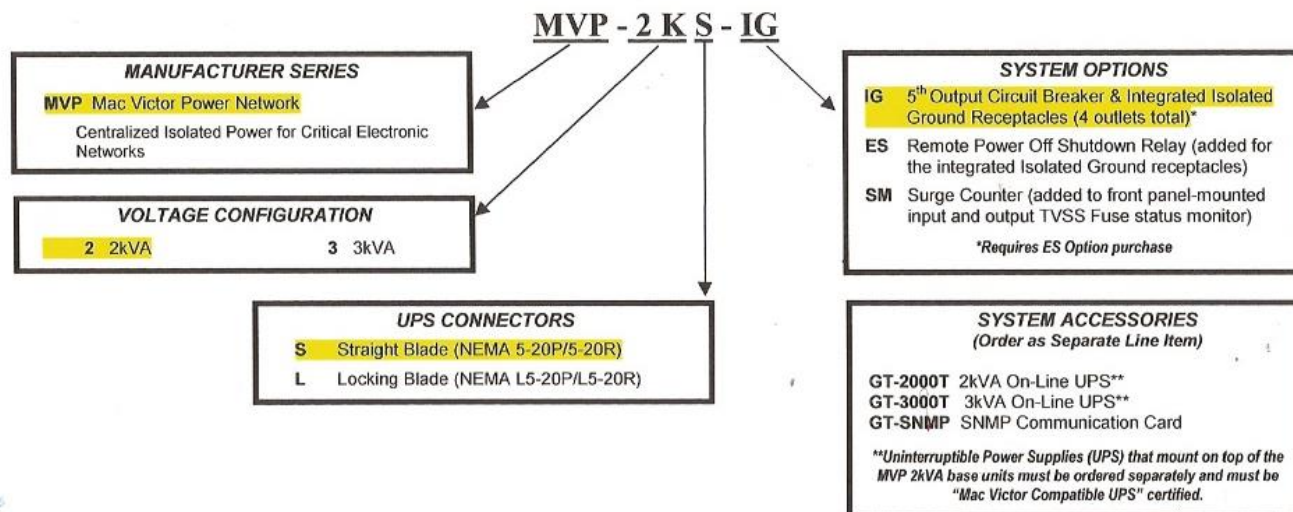
- **Input Power Connections:** Input terminal block
- **UPS Input Receptacle:** Provided for input power connections
- **UPS Output Cable:** Power cord with plug provided for connection to the UPS output receptacle
- **Main Input Circuit Breaker:** Disconnecting means for power to the unit as well as overcurrent protection; 1-pole molded case, sized for 125% of full load input current; rated for 240 VAC. UL489 Listed; minimum UL-listed interrupt rating is 10,000 RMS symmetrical amperes.
- **Input TVSS:** Parallel connected, DIN rail mounted and connected in Line to Neutral mode. Modular TVSS device is rated for 40,000 amps of 8/20  $\mu$ s surge current; replaceable in event of failure without removing base components; Form "C" Contact included to interface with system monitor.
- **Bypass Switch:** Make-before-break Bypass Switch bypasses UPS for service/maintenance or in event of failure; rated for 600 VAC and 20 Amps (1.5/2.0 kVA) or 25 Amps (3.0 kVA) for continuous use; "NORMAL" and "BYPASS" operation modes.
- **Isolation Transformer:** Electrostatically shielded low impedance isolation transformer; dry-type, 1 phase, common-core, convection air-cooled; 115°C maximum temperature rise with 180°C insulation class; copper windings. Complies with UL standards 506, 5085-1 and 5085-2; energy efficient with a full-load efficiency of 94 to 96%.
- **Output TVSS:** Parallel connected output TVSS device integrated on same PCB as the EMI/RFI filter, connected in Line to Neutral mode; rated for 40,000 amps of 8/20  $\mu$ s surge current; interfaces with monitoring system to provide indication of system anomaly.
- **Isolated Ground:** Computer-grade, single-point Ground (per IEEE Std. 1100, FIPS Pub 94 and NEC requirements); transformer output Neutral will be solidly grounded per NEC article 250-26.
- **Output Circuit Breakers:** Up to 5 output circuit breakers provide disconnecting means for system outputs and overcurrent protection (1 is dedicated to power the optional 4 isolated ground receptacles); 1-pole, molded case; sized for 20 Amps; rated for 240 VAC. UL489 Listed with minimum UL-listed interrupting rating of 10,000 RMS symmetrical amperes.
- **Remote Power Off:** RPO switch meets specific site needs and local codes; activates the RPO relay for system shutdown. Switch has 1 normally closed (NC) maintained contact rated for a minimum of 0.083Amps @ 120 VAC ( $\pm$ 10%).
- **Isolated Ground Receptacles (Optional):** 4 NEMA 5-20R Isolated Ground Receptacles are installed in the end panel of unit; fed from (1) 1-pole 20 Amp breaker.
- **Emergency Shutdown – Fueling Applications (Optional) - Isolated Ground Receptacles Options Required:** Unit has capability to shutdown output to the Isolated Ground Receptacles when initiated by the fuel dispensing system. Fuel dispensing system activates the ES relay to shut down the output to the Isolated Ground Receptacles; use of this option requires that the Isolated Ground Receptacles be dedicated to the fuel dispensing equipment.

### MVPN MODEL NO. NOMENCLATURE

Model numbers are comprised of one BASE ITEM NUMBER with one or more additional OPTIONAL ITEM SUFFIXES. Multiple suffixes can be used for additional options.

#### SAMPLE MODEL NO: MVP-2KS-IG

#### 2kVA Mac Victor 2.0 Base Unit with Straight Blade UPS Connectors & Optional 5<sup>th</sup> Breaker with IG Outlets



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