**MPM-K450**

**450W Medical AC / DC**

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**FEATURES**

- 300W convection cooling and 450W fan cooling.
- Peak Load 600W.
- Safety Class I or Class II.
- Design for BF application.
- High efficiency up to 94%.
- No load input power < 0.5W.
- Remote sense & built-in fan supply.
- Optional remote on/off and PG / PF signal.
- 5,000m operation altitude.
- Optional cover-kit.

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### Models & Ratings

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Wattage (Rated / Max)</th>
<th>Output Voltage</th>
<th>Min. Current</th>
<th>Rated Current</th>
<th>Max. Current</th>
<th>Typical Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPM-K453</td>
<td>300 W / 400~450W</td>
<td>+12 V</td>
<td>0 A</td>
<td>25 A</td>
<td>37.5 A</td>
<td>94%</td>
</tr>
<tr>
<td>MPM-K455</td>
<td>300 W / 400~450W</td>
<td>+24 V</td>
<td>0 A</td>
<td>12.5 A</td>
<td>18.75 A</td>
<td>95%</td>
</tr>
<tr>
<td>MPM-K456</td>
<td>300 W / 400~450W</td>
<td>+48 V</td>
<td>0 A</td>
<td>6.25 A</td>
<td>9.38 A</td>
<td>95%</td>
</tr>
</tbody>
</table>

Dimensions: 152.4 (L) x 101.6 (W) x 37.6/40.1 (H) mm, Tolerance +/- 0.5mm.

Total Output Power: Max. 300W convection cooled at 50°C environment temperature. Max. 450W with 16.3 CFM at 50°C environment temperature. 600W peak load with input 100VAC 10sec.

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**Model no. coding : M P M – K 4 5 0 – X – Y**

<table>
<thead>
<tr>
<th>X=</th>
<th>Output set</th>
</tr>
</thead>
<tbody>
<tr>
<td>blank</td>
<td>Single output</td>
</tr>
<tr>
<td>SB</td>
<td>Dual output (with +5Vs &amp; remote on/off &amp; PG/PF function)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Y=</th>
<th>Cover Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No cover, open frame CLASS I</td>
</tr>
<tr>
<td>2</td>
<td>Additional bottom plate CLASS II</td>
</tr>
<tr>
<td>F</td>
<td>With cover and internal fan CLASS I, II</td>
</tr>
<tr>
<td>C</td>
<td>With cover only CLASS I, II</td>
</tr>
</tbody>
</table>

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**Input**

- **Input Voltage**: 85 ~ 264VAC
- **Input Frequency**: 47 ~ 63 Hz
- **Input Current**: 6/3A
- **Inrush Current**: 30/60A
- **No-load power consumption**: <0.5W
- **Input Protection**: Fuse: 6.3A /250VAC * 2pc

**General**

- **Isolation**: IP to OP 4000 VAC
- **Switching Frequency**: 67 KHZ

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**Output**

- **Output Voltage**: 12V, 24V, 48V
- **Minimum Load**: 0A
- **Hold up Time**: 25 / 16 mS
- **Line Regulation**: ±1.0
- **Load Regulation**: ±1.0
- **Ripple & Noise**: 120(+12V), 240(+24V), 240(+48V)
- **Leakage Current**: 100/300 uA
- **Overvoltage Protection**: 110%MIN, 120%Typ., 140%MAX.
- **Short Circuit Protection**: Automatic recovery mode.

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**Notes**

- Automatic recovery mode:
  - IP to OP 4000 VAC
  - IP to GND 1500 VAC
  - OP to GND 1500 VAC

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EMC: Immunity
- ESD: IEC 61000-4-2
- Radiated: IEC 61000-4-3
- EFT: IEC 61000-4-4
- Surges: IEC 61000-4-5
- Conducted: IEC 61000-4-6
- Power Magnetic: IEC 61000-4-8
- Dips and Interruptions: IEC 61000-4-11

Operating Temperature: -30 ~ +70°C
Storage Temperature: -40 ~ +85°C
Relative Humidity: 5 ~ 95%RH
Cooling: 16.3 CFM
Operating / Non-operating Altitude: 5000m

EMC: Emissions
- Conducted: EN 55011 / CISPR 11 & FCC Part 18
- Radiated: EN 55011 / CISPR 11 & FCC Part 18
- Harmonic Current: EN 61000-3-2
- Voltage Fluctuations: EN 61000-3-3

Safety Approvals
- TUV: EN 60601-1: 2006+A11+A1+A12
- UL/cUL: ANSI/AAMI ES60601-1, CAN/CSA-C22.2 No. 60601-1
- CE: EN 60601-1: 2006+A11+A1+A12

Environmental
- Derating curve

Derating curve

![Derating curve graph](image_url)
Note:
If you want to use the metal plate beneath this PSU as class II, the metal plate should be treated as "floating" that both distances from human body and primary side to accessible metal part (plate) have to be at least 4mm of 1xMOPP to meet Class II (The metal plate should be kept 1XMOPP away from human body).
Application notes:

Application (1)

Note:
The safety GND should be connected to the customer’s enclosure.

Application (2)
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With cover

All dimensions are in Inches [mm] Tolerance: +/- 0.5mm

Note:
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With fan

All dimensions are in Inches [mm] Tolerance: +/- 0.5mm

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