# MW153KB 

Universal 25-40 Watt Series

## Medical / Switch Mode Power Supply

## 3 Year Warranty

- 100-240 VAC Universal Input
- Desktop Style
- Single Output to 40W
- Four Models Available; 12 V to 24 V
- Regulated Output with Low Ripple
- Impact Resistant Polycarbonate Enclosure
- Modified and Custom Designs Also Available
- Designed to Meet EISA Requirements see reverse side for details

International Safety Standard Approvals

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## Specifications

Output Specifications
Line and Load
Regulation (Excluding cord)

| Ripple |
| :--- |
| Transient Response |

Protection
Line Voltage $+/-1 \%$ Load Voltage $+/-5 \%$
1\% Vp-p max.
0.5 ms for $50 \%$ Load change Typical

Over-current Protection (Hiccup)
Short Circuit Protection

| Input Specifications |  |  |
| :--- | :--- | :--- |
| Input Voltage Range | Universal input | $100-240 \mathrm{VAC}-10 \%,+10 \%$ |
| Line Frequency |  | $47-63 \mathrm{~Hz}$ |
| Input Current | 90VAC Input | 0.4 A max. |
| Protection |  | Internal Primary <br> Current Fuse, <br> Inrush Limiting |


| Environmental Specifications |  |
| :--- | :--- |
| Thermal Performance | Operating temperature <br> full load, no derating <br> convectional cooling <br> Non vented case |
|  | $0^{\circ} \mathrm{C}$ to $40^{\circ} \mathrm{C}$ |
| Relative Humidity | Non-condensing |$\quad 5 \%$ to $95 \%$


| General Specifications |  |
| :--- | :--- |
| Topology | Switching-Fixed <br> Frequency Flyback |
| Efficiency | Designed to Meet EISA <br> Requirements - see <br> reverse side |
| Hold-up Time | 18ms min. |
| Dielectric Withstand | 4,000 VAC or 5,656VDC <br> Primary - Secondary; <br>  <br>  <br> 1,500VAC or 2,150VDC <br> Primary-F.G; 500VDC |
| Storage Temp | Secondary-F.G |

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## 2007 Energy Independence and Security Act - ElSA

The Energy Independence and Security Act of 2007 was passed in December of 2007 and addresses minimum efficiency standards and standby levels for Class A external power supplies that are 250 watts and under. This law stipulates that external power supplies manufactured on July 1, 2008 and beyond meet certain minimum efficiency and standby criteria as defined below.

## Minimum Efficiency Criteria

Active mode is defined as when a power supply's input is connected to line voltage $A C$ and its output is connected to a DC or AC load drawing a portion of the product's power output. Depending on the power rating for the power supply, it must meet the minimum efficiency criteria outlined below.

```
Energy-Efficiency Criteria for Active Mode:
output power on minimum average
adapter label efficiency percentage
0 to sless than 1 watt }\geq0.50* output power on adapter label
1 to \leq51 watts
> 51 watts }\geq0.8
                                    z[0.09 * Ln (output power on adapter
                                    label )] + 0.50
```

The power supply must also meet a requirement for when its input is connected to a line voltage $A C$ but its output is not connected to a load. Depending on the power output of the supply, it must keep its energy consumption below the following values.

```
Energy Consumption Criteria for No Load Mode:
output power on maximum power consumption
~
pter label
    in no-load mode
0 to < 250 watts }\leq0.5\mathrm{ watts
```

