External Power Supply International Efficiency Level V

ErP Phase 2

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Background

- More than **one billion** external power supplies are sold worldwide each year
- Majority of these supplies are used to convert the high voltage **AC** to the low voltage **DC** for powering small electronic office equipment or medical products.
- This conversion will produce **wasted heat** which brings the overall **efficiency** to less than **85%**
- Considering **100MWatt** of electricity consumed , efficiency improvement of only **1%** will result in energy saving of **1MWatt**. This number becomes significant in reducing wasted power for over one billion external power supplies used globally
- Through extensive **international** collaboration, a standard test method and performance metric of **no load** and **average efficiency** have been established
- The **average efficiency** is calculated based on **25%** increments in output load from 25% to 100%
- The first mandatory requirement by **EPA** in US was meeting efficiency **Level IV** legislated under **EISA**
- **EPA** and international environmental regulatory bodies have adopted **Level V** efficiency standards effective **2011**
- **CE** marking denotes the compliance to efficiency requirements set by European Commission under EU(EC) No 270/2009 Phase II directive

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Product Transition

EISA2007, CEC Efficiency Level V EU (EC) No 278/2009 Phase II Output Voltage ≥12VDC					
Output Power	**Minimum Average Efficiency**	**Maximum No load Consumption**	**Effective Date**	**SL Power New ITE Product Family Level V**	**SL Power Existing ITE Family Level IV Do not meet Level V**
0 to 51 Watts	Varies from 81% to 87% *Depends on Wattage Level*	≤0.3Watts	4/27/2011 in Europe	CENB1010 (10Watts) CENB1020 (20Watts) CENB1030 (30Watts) CENB1040 (40Watts)	*PW170 (10Watts)* *PW172 (20Watts)* *PW173 (30Watts)* *PW153 (40Watts)*
>51 to 250 Watts	≥87%	≤0.5Watts	4/27/2011 in Europe	CENB1050 (51.1Watts) CENB1060 (60Watts) CENB1080 (80Watts) CENB1090 (90Watts) CENB1100 (100Watts) MENT1150 (150Watts) MENT1220 (220Watts)	*PW174 (60Watts)* *PW156 (75Watts)* *CENT1120 (120Watts)*

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Medical Products

EISA2007, CEC Efficiency Level V EU (EC) No 278/2009 Phase II Output Voltage ≥12VDC		
Output Power	**SL Power New Medical Family Level V**	**SL Power Existing Medical Family Level IV** **Do not meet Level V**
0 to 51 Watts	MENB1010 (10Watts) MENB1020 (20Watts) MENB1030 (30Watts) MENB1040 (40Watts)	*MW170 (10Watts)* *MW172 (20Watts)* *MPW173 (30Watts)* *MW153 (40Watts)*
>50 Watts	MENB1050 (51.1Watts) MENB1060 (60Watts) MENB1080 (80Watts) MENB1090 (90Watts) MENB1100 (100Watts) MENT1150 (150Watts) MENT1220 (220Watts)	*MW174 (60Watts)* *MW155 (75Watts)* *MW156 (110Watts)*

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Take away Points

- Look for the  and the CE marking on the power supply label
- ErP2 requirements goes in effect by 27th of April 2011
- Level V products should be specified for new designs
- There is no specific requirement for Medical External supplies to meet any specific efficiency level. However, customers are starting to request level V for new designs
- There are some countries requiring MEPS (minimum energy performance requirements) certifications. Australia, New Zealand, Canada, and South Korea are among them
- After April 27th, CE marking will include declaration of conformity to EU (EC) No 270/2009 Phase II requirements

Thank you!