



## MB65 - Ready for the Future of Home Healthcare

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Regulatory changes in the medical industry are slow but sure. The past few years have seen updates implemented to the medical safety regulatory standard based on IEC60601-1 3rd edition. This primary standard also has collateral standards, one of which defines the requirements for electromagnetic disturbances (EMC). The IEC has recently (February 2014) issued the 4th edition of IEC60601-1-2, "General requirements for basic safety and essential performance – Collateral Standard: Electromagnetic disturbances – Requirements and tests." This is now being reviewed by EU nations and expected to be adopted in the next couple of years as a European Norm (EN standard). Plan ahead and be ready for these requirements as it impacts the professional and home healthcare markets. The main areas that have changes and are more demanding are; the AC input voltage range and power dropouts, ESD immunity and electric and magnetic field susceptibility.

The SL Power Electronics' MB65S was developed with this in mind and is especially well-suited for home healthcare equipment. Specifically, the AC input continuous operating range now goes to 85VAC, down from 90VAC. This offers added margin for home healthcare environments, where power quality is more variable and less well controlled than in hospitals and clinics.

Another area with a very significant change is in the level of electrostatic discharge protection. This has increased from 6KV to 8KV contact discharge and from 8KV to 15KV air discharge. Clearly, the regulatory bodies have recognized the high levels of Electro Static Discharge that can be generated with the synthetic and natural materials used in the home and also professional institutions. See our website for more information on ESD.

The MB65S also leads the industry by meeting emission requirements for home healthcare, including class B levels for conducted and radiated emissions with margin. This is quite an accomplishment! This feature simplifies the medical equipment design, eliminating the need for external components or circuitry to meet the Class B emission levels. This simplification can provide significant cost savings to the end equipment.

The MB65S's compact size, 2" x 3", high output power convection cooled rating, 65 watts, excellent safety isolation, 2 MOPP, type BF is designed for the long life expected of the home healthcare environment. This model family is designed to operate at higher temperatures up to 70°C, while still providing 40 watts of continuous output power.

This family of AC/DC power supplies is an excellent balance of features versus size and cost. Power fail signals and temperature sensing for over temperature protection can be monitored by the system and appropriate action taken while avoiding uncontrolled shutdown.

The MB65S leads the way for reliable, compact power at a competitive cost while compliant to the new EMC requirements for the 4th edition of IEC60601-1-2.

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