

# Healthcare Reform Driving Out Cost at All Levels

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The reform of healthcare provision and the way it is funded has become a very emotive issue. Whatever your thoughts and viewpoints on the topic of the Affordable Care Act, one of the underlying priorities of this reform is to drive cost out of all aspects of the healthcare system. Next to staffing, the wide range of equipment used for healthcare purposes is a significant cost. From operating theatre to patient bedside, electronic diagnostic and monitoring appliances are omnipresent. For such equipment, one priority is increasing its service life, requiring less or no routine maintenance and making it more reliable in operation. The trend towards sealing an item of healthcare equipment for life is becoming popular. That, together with the need for the equipment to operate in an environment where liquids are commonplace and for equipment noise to be kept to a minimum, is driving the design of new healthcare equipment and appliances.

When it comes to power supplies, fans have traditionally been used to keep them operating at the correct temperature by removing the waste heat of the power conversion process. However, fans create audible noise that is annoying for medical staff and patients alike. Also fans, like many moving parts, prove to be the least

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reliable component of any system. They also allow the ingress of moisture and dust. The need for sealed and quiet equipment is now stipulating that power supplies are not fan cooled. This, however, is only possible when an alternative method of cooling the power supply unit is used. The alternative approach is that of convection cooling the power supply and combining this cooling method with a high efficiency power supply, resulting in less heat to dissipate. Design engineers of medical equipment would need to select a convection-cooled power supply that is, say, 95% efficient, and can operate at full power up to the order of 70°C ambient temperature without any derating. A power supply designed this way, and with the relevant medical safety approvals, would satisfy the healthcare market criteria of a greater service life, operating in high ambient heat and generating no noise.

As a power supply manufacturer, we have been at the forefront of designing a medical-qualified highly efficient power supply that is convection cooled. Rated at 200 Watts output power, the CCB200 confirms to the all the needs of powering medical and healthcare equipment that the latest round of healthcare reforms require.

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