

# SLB350 Solves Thermal Instability in Building Control Systems

**INDUSTRY****Medical****SOLUTION****SLB350 Series****APPLICATION****Building Automation Controls****CHALLENGE**

A building controls systems company faced a critical reliability issue: their existing power supply was overheating and shutting down under specific operating conditions. Investigations revealed that installations in certain regions were supplying input voltages below 100 Vac—at the lower edge of the acceptable range. Combined with elevated ambient temperatures inside control enclosures, the power supply's thermal limits were being exceeded, leading to system failures.

The original unit, rated at 180 W convection-cooled, required significant derating under these conditions—effectively limiting output to just 120 W, which was insufficient for proper equipment operation. Advanced Energy stepped in with a solution that not only addressed the thermal and voltage challenges but ensured consistent performance across all deployment environments.

**SOLUTION**

After a thorough review of the customer's system power requirements, Advanced Energy recommended the SLB350S12K open-frame power supply—delivering a seamless upgrade with measurable benefits. The SLB350 matched the footprint of the previously used unit, eliminating the need for enclosure modifications and simplifying integration. With a robust 180 W convection-cooled rating at ambient temperatures up to 60°C, and full power delivery across a wide input range (90–264 Vac), the SLB350 ensured reliable performance even in demanding environments.

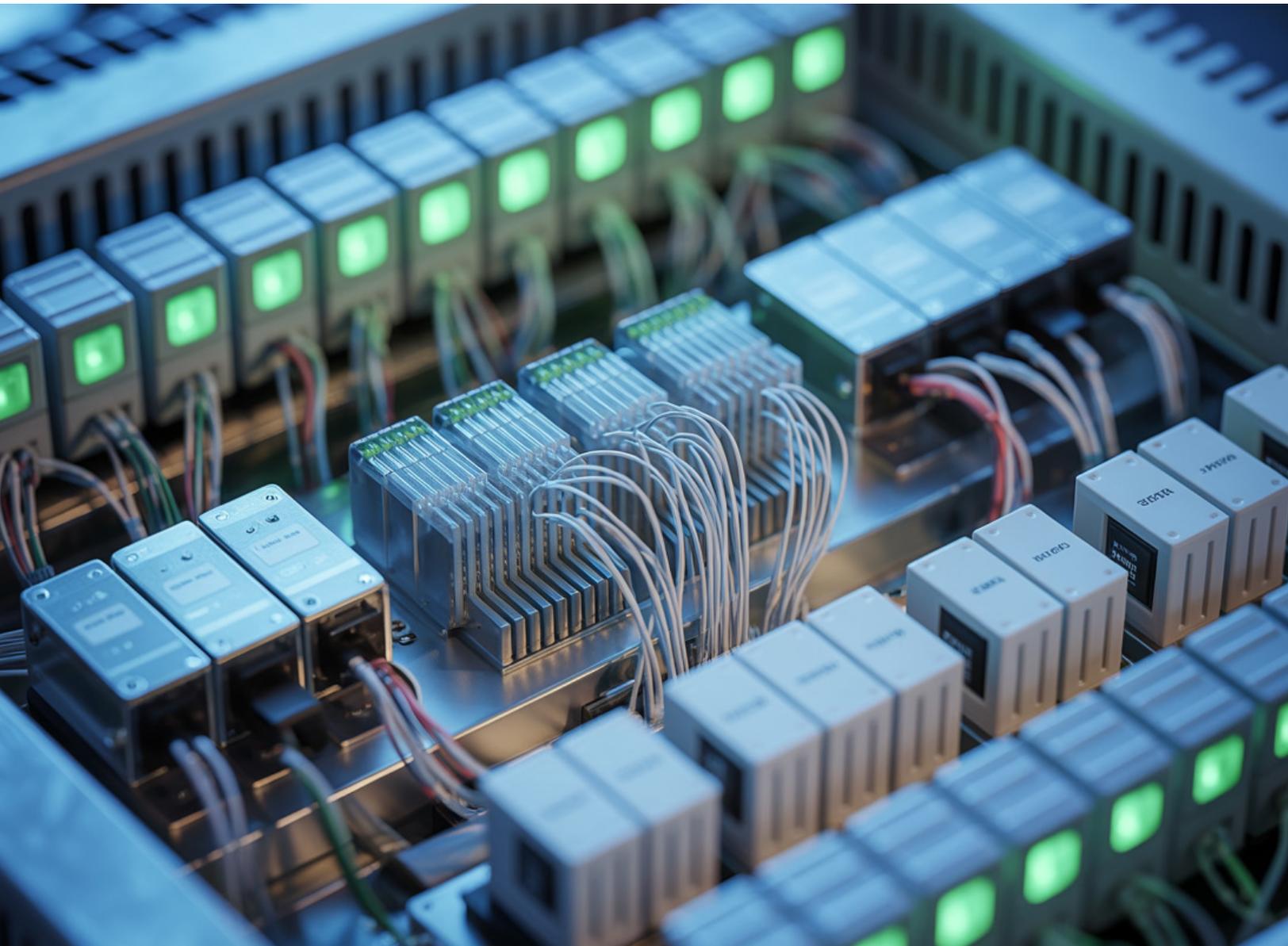
The unit also met stringent Class B conducted and radiated emissions standards, supporting compliance without additional filtering. To further streamline deployment, Advanced Energy proposed supplying the input and output cabling—allowing the customer to retain their existing wiring and avoid redesigning.



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## RESULT

By recommending the SLB350S12K power supply, Advanced Energy delivered a robust, right-sized solution that resolved the customer's shutdown issues and significantly improved system reliability. Beyond just the power supply, we streamlined their integration process by providing pre-qualified input and output cables—eliminating the need for redesign and accelerating their transition to the new part. This thoughtful recommendation, paired with practical modifications, showcases Advanced Energy's commitment to solving customer challenges efficiently and cost-effectively—without resorting to expensive custom solutions. It's a clear example of how our technical insight and responsiveness translate into real-world value.



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