Reduce Electronic Waste Heat Without Breaking the Budget

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Thermal management has been one of the primary concerns for today's industrial facilities that must rely on maximum performance of sophisticated and highly advanced computers and components. Excess heat generated by electronics, if left unchecked, can damage the effectiveness of components and other intricate equipment inside panels and enclosures. The energy and heat they produce has to be substantially dissipated for the equipment to run with optimum efficiency over a long period. At the same time, companies have to be aware of the growing concern about incorporating environmentally-sound practices in all operations, and the impact on the company's finances. Can industry have both? The answer is yes, thanks to advancements in technology that can reduce heat within cabinets and panels efficiently without negatively impacting the bottom line.

No matter how sophisticated the technology, component reliability and its projected lifespan will inevitably decrease if temperatures rise to unacceptable levels. For that reason, manufacturers usually recommend an "optimum operating temperature" with an unsubtle caveat: do not exceed this level. If the heat is neither substantially reduced nor dissipated, components or equipment will be damaged and the manufacturer is likely to void the product warranty. Industries are quite aware of the susceptibility of components to heat-related damage, and have relied on one of several methods to control the heat that the circuitry produces. All of them work, but some are energy inefficient, which means that plants are using and paying for

more energy than they actually need. Other cost issues detrimental to plant budgets are high maintenance and down time.

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