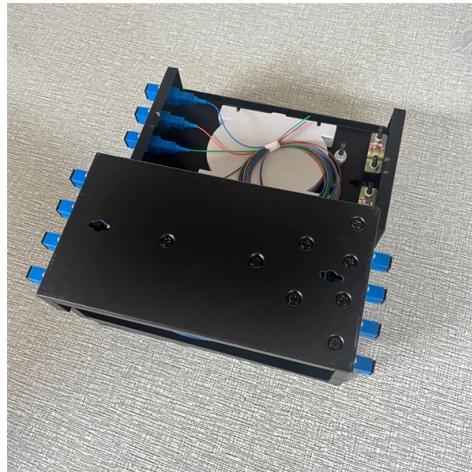


Power supply lifespan of industrial switches



Overview

It will most likely be in production for five, ten or fifteen years, possibly longer, to meet the financial return on investment. The lifespan of an industrial PoE ethernet switch is typically much longer than that of a standard commercial switch, largely due to its rugged design and ability to withstand harsh environmental conditions. The reliability and durability of these power supplies are of utmost importance, as they directly impact the performance and lifespan of the connected. This article explores how to extend the service life of switching power supplies and enhance system stability through three core perspectives: lifespan-determining factors, thermal design considerations, and key component selection. 5min, MTTF >1,000,000hrs due to extreme low Failure rate requirement (Human beings on board!) Human Being - Life expectancy 75 years / MTBF approx. 800 years (hard to define EOL, death?

) Lifetime dominated by weakest component. Silicon power switches, surface-mount ceramic resistors, and planar magnetic transformers are highly resilient, often. MTBF (Mean Time Between Failures) refers to the average interval between consecutive failures of a device operating continuously under specified conditions. For example, an automobile manufacturing enterprise deployed industrial switches with an MTBF of 100,000 hours on its production lines.



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The actual life is dependent on ambient and environmental conditions, load, variation of load, power system configuration, output and

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MTBF: A probability (risk) figure, of how likely an item is to fail within the lifetime period. A system of n power supplies increases the

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Issue: Life expectancy data available for switchgear Product Line: Switchgear

Environment: HVL Metalclad Metal

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