The "9's" of Reliable Power

Bell Labs Study: 87% of downtime is due to interruptions (voltage sags) lasting no more than 1/2 second! But this is more than enough time to shutdown critical production processes. With digital controls everywhere (high-tech manufacturing plants, transportation, TV/Radio, telecom, etc.) power quality events have become more costly than ever. Estimates for costs associated with outages range from $35 billion to $150 billion per year!

Average Downtime Cost Per Industry*

Cellular Communications …………… $41,000/hr
Telephone Ticket Sales …………….. $72,000/hr
Airline Reservations ………………… $90,000/hr
Credit Card Operations …………….. $2.58 million/hr
Brokerage Operations ……………… $6.48 million/hr
Microchip Manufacture ……………... $1 million/minute

* Source of Data: Power Engineering magazine 4/2002

The following chart gives the usually desired power availability and reliability in "9's" for various applications. Each successive increase in reliability is met by having greater equipment support through redundancy in protection and other design means and at increasing cost. We can assist you in determining how best to meet your reliability goals without adding excessive cost or complexity.

Reliability		Okay for	Expected Outage Per Year
THREE 9's	99.9%	Homes	9 Hours
FOUR 9's	99.99%	Factories	59 Mins
FIVE 9's	99.999%	Hospitals	5 Mins
SIX 9's	99.9999%	Banks	32 Sec
NINE 9's	99.999999%	Digital Markets	30 Msec