MGE UPS SYSTEMS RECEIVES PRESTIGIOUS COMPANY OF THE YEAR AWARD

MGE UPS Systems has been awarded Frost & Sullivan's prestigious 2005 UPS Company of the Year Award. This award is based on numerous factors including the company's business development, competitive strategy and leadership.

"Frost & Sullivan recognizes MGE UPS Systems' effective management, successful new market penetration strategy, innovation capability and outstanding quality of service, all based on a unique customer care policy," says Shaun Dawson, a Frost & Sullivan analyst.

"MGE has become a top player in all national markets in which it operates thereby becoming a truly worldwide company. Offering power protection solutions to a range of end-users from small business to IT and industrial users, MGE has become synonymous with quality and reliability in the field of 'Power Quality' creating an extremely strong brand with customers and the industry."

"This award recognizes our capacity to continually innovate our solutions, process and services providing our customers with innovative power solutions. Customer care is a key characteristic of MGE UPS Systems," says Claude Graff, president & CEO of MGE.

MGE's innovative and successful product line strategy was also honored last year by Frost & Sullivan with its 2005 Product Line Strategy Leadership award.

MGE's global product line includes Uninterruptible Power Supplies (UPSs), inverters, power conditioners, power distribution units, power management software, active harmonic filters, and surge suppressors.

lightning rods

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circuit breakers. When equipment breaks down electrically, shorting to case or ground, it must have a low impedance path to allow sufficient current flow in order to trip protective devices. This is accomplished primarily through the ground conductors tied to the utility neutral at the service entrance. But here again, there is a common misconception that the building ground is of little consequence. Various figures ranging from 85 to 95% are cited for the portion of fault current returning through the system neutral. These are fundamentally correct, and the NEC forbids using the earth as the sole return for fault clearance. But the regrettable inference is that this makes the local ground unimportant. Good grounding is never unimportant! If protective devices were 100% effective, there would be virtually no electrical damage or injury. Since this is not the case, every advantage or improvement is worth maximizing. In one documented instance, an electrician and helper both survived despite the occurrence of a major fault while they were installing a 600 Amp panel on 4000-Amp switchgear. The local ground contributed no small part to the rapid clearance.

Proper grounding ties the electrical system to the earth as a reference (arbitrarily zero potential). This fixes the voltage ratings of electrical equipment, limits the stress on insulation within rated tolerances and thereby reduces the risk to personnel, provides a relatively stable system with minimum transient over-voltages, and facilitates "quick" (milli-seconds) isolation of ground faults. Isn't this worth the investment of appropriate time and attention?

Less sophisticated equipment of 20 years ago could operate with considerable voltage disturbance. But state-of-the-art computer, telecommunications, and process control circuits place increasing demands on power quality. Disturbances below the level of protective trips wreak havoc on sensitive electronics if not diverted readily to ground. Switching power supplies in equipment "chop" the utility wave into narrow operating signals and introduce harmonics into the electrical system. Common "noise" can be mistaken for operating signals, shutting down computers and process controls. And harmonics can circulate endlessly through the system, causing overheating, burnouts, and fires. An effective ground is crucial in getting rid of these hazards. Reported cases include the elimination of production downtime on a metal deposition sputterer, maximized reliability of checkout cash registers, and improved range of telecommunications towers.

And don't overlook the threat of static electricity, either. Non-conductive materials (belts, conveyors, processed paper and textiles) in motion in proximity to electrical circuits can separate large charges that will eventually discharge to ground… right through sensitive circuitry if no better path is available. The propensity for destroying IC chips is only beginning to focus adequate attention on the problem of static. But it can ruin equipment, trigger explosions, and ignite fires. A firm contact between potentially charged surfaces and ground will effectively dissipate this buildup before it can randomly spark to a convenient ground path. One optical manufacturer reported the virtual elimination of circuit card failures on sensitive process-control equipment.

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The local ground provides much more than lightning protection alone. It is a valuable adjunct to the utility ground and can make the difference between a smoothly functioning electrical plant and one plagued by shutdowns and reactive maintenance.

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