

GEIST

Future Thinking • Solutions Today



Product Overview



From Power Strips to DCIM Solutions

Power

Geist offers the broadest range of power distribution units (PDUs) in both standard and custom options, from robust basic to sophisticated outlet level switching units. Our on-site manufacturing center allows for the highest quality control and industry leading turn around times.

Cool

New data center technologies require a change in operational thinking. Geist's intelligent containment system minimizes energy consumption by containing hot air and expelling it directly to the computer room air conditioner (CRAC) unit. This increase in efficiency could lead to tens of thousands of dollars in savings in one year alone.

Monitor

Geist's array of monitoring products protect critical data center equipment by tracking environmental factors such as heat, humidity, water leakage, electricity, smoke and intrusion. Users can monitor a single element or create an intricate framework of sensors and cameras to observe large data centers, server rooms and network closets.

DCIM

Geist has installed more than 450 data center infrastructure management (DCIM) systems worldwide. With comprehensive data aggregation systems to automate data center reporting and provide critical infrastructure management tools, Geist creates real efficiencies by managing the data center as one interconnected unit.



Industry Leader

- Established in 1948
- 65 years of continuous growth
- Privately held company
- 20 percent employee owned
- Installations globally
- Office locations in USA, China and Europe

Quality

Geist is dedicated to developing the highest performing products and most innovative solutions in the industry. From hand-soldered connections in our power strips to enterprise-level DCIM implementation teams, we consistently exceed our customers' expectations.

Tailored

Geist has been customizing cost-effective solutions for clients for more than 65 years. It's part of our culture. Geist can take your road map and desired features and make them a reality. We are committed to quickly meeting each specific customer need with technological expertise and unbeatable detail.

This brochure contains an overview of the products offered by Geist. For more information, visit geistglobal.com or call our sales team at **800.432.3219**.



**GEIST
POWER**

Offering thousands of standard PDUs
and extensive customization options

Power Solutions for All Applications

From robust basic units to sophisticated outlet level switching units, Geist supplies what may be the largest range of standard units in the industry, while specializing in build-to-order PDU's that meet the unique needs of each client. All accompanied by industry best lead-times and backed by on-site manufacturing and UL lab.

- Made in the USA
- ISO 9001 certification
- Orders ship within 3 days
- Custom orders ship in as little as 5 days
- Record of 99.7 percent on-time delivery
- On-site UL testing lab
- All units 100 percent tested on-site

Tested to 1 Percent Accuracy

Geist's outlet power monitoring line of PDUs pass a rigorous battery of independent U.S. and international accuracy testing. The tests ensure users that Geist PDUs measure within 1 percent accuracy of power readings recorded at the outlet level and within 1 percent of the voltage, frequency and temperature readings.



Switched Power

Geist switched PDUs provide hands-on power—even from miles away. While monitored PDUs can display information remotely, only switched PDUs offer the ability to use that information and stay in control of individual power outlets. Manage critical issues that arise with the click of a few buttons on a smart phone or computer. Disable problem equipment by cutting power to specific outlets and reboot equipment remotely by cycling power.

Our Switched Ultra Series has outlet level power monitoring for granular power consumption data of all equipment. Max Group Amps offer an extra level of protection by preventing circuit overload via client-specified thresholds.



Power Monitoring

Geist Power Monitoring PDUs provide a comprehensive view of outlet level power usage in a data center. Local and remote power monitoring display options offer quick access to each outlet's current, volts, real power, apparent power, power factor and kilowatt hours. The environmental sensor ports provide the ability to track critical climate variables. Power Monitoring PDUs are available with unit level or outlet level monitoring capabilities.



Geist Upgradeable

Geist Upgradeable power strips give data center managers the flexibility to install the intelligence they require with the option to upgrade technology as needs evolve. From basic power to sophisticated power monitoring with remote sensor, the Geist Upgradeable product line adapts to your business well into the future.



Upgradeable Monitoring – Install the technology you need today with the ability to upgrade as your needs evolve.

Hot-Swappable Units – Add, remove or switch Interchangeable Monitoring Devices (IMD) without interrupting power to critical servers.

High Temperature Grade – 60°C working ambient variants for high temperature environments.

Remote Sensor Port – Monitor environmental conditions such as temperature, airflow, humidity and dew point with the use of a Geist remote sensor.

Input Power Monitoring 1% Accuracy (ANSI and IEC standards) – Allows data center managers to accurately reconcile power usage.

Fault-Tolerant Daisy Chaining – Simplifies intelligent PDU connectivity and ensures data is reported even with a break in the chain.

Available With or Without U-Lock Receptacles – The patented U-Lock technology naturally captures and securely locks cords in place. Each receptacle is color injected directly, to assure load balancing is achieved.

Transfer Switch

Geist's Auto Transfer Switch provides redundant power for single-corded data center equipment. If the primary power source fails, the transfer switch automatically shifts to a secondary source, ensuring uninterrupted service. Once the power from the primary source is restored, the unit automatically switches back to the original source of power.



Local Monitoring

Current Meter PDUs offer local monitoring to display usage at a glance. This reduces the chances of overloading a PDU when adding, removing or adjusting equipment.



The **Power Meter** offers detailed information through a scrolling display of the four critical power measurements: Power Factor, Amps, Volts and Watts. This information can be used to calculate kilowatt hours to easily evaluate power costs and identify usage issues to prevent critical failures.

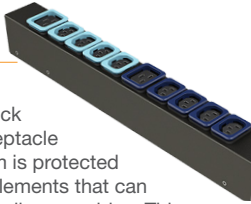


Upgradeable Inline Power Monitoring allows for the retrofit addition of power monitoring to basic PDUs. Simply insert the monitor between the PDU and the power source to display accurate measurements.



U-Lock Receptacles

Geist offers IEC C13 and C19 receptacles with patented U-Lock technology. Built within the receptacle housing, the locking mechanism is protected against vibration and external elements that can easily dislodge external locking clips or guides. This self-contained locking mechanism works with any standard IEC plug. U-Lock receptacles are standard on some units and are available for custom orders.



Basic Power

Geist offers reliable power distribution with no frills, just 100 percent performance, guaranteed for life. Geist's basic PDUs come in Surge, Basic Power and Upgradeable configurations with a variety of electrical options. Incorporating an optional current or power meter is especially useful when adding, removing or adjusting equipment because it provides instant power usage feedback, helping users avoid overload and costly downtime.

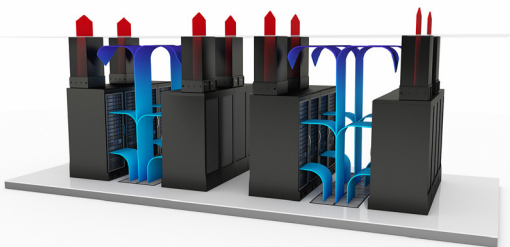


Low Profile Breakers

Geist's low-profile breakers reduce the PDU depth by over 40 percent compared to traditional breakers. The slimmer design protects against electrical overloads and allows the PDUs to be easily installed in data center cabinets with limited space.

Low-profile breakers are a standard feature on select basic and intelligent PDU configurations. Customers may choose to incorporate the smaller breaker design on applicable custom PDU orders.





**GEIST
COOL**

Maximize cooling efficiency while easily maintaining a perfectly controlled temperature.

Air Management Systems

Geist Cool solutions offer sophisticated airflow management to data centers of any size and capacity. By containing and directing hot air, the Geist line delivers significant cost savings while improving the long-term reliability of mission-critical IT equipment.

- Maintains a perfectly controlled and consistent IT environment
- Maximizes efficiency while maintaining an ideal temperature throughout data centers
- Contains and removes 100% of the heat so there's no mixture of hot and cold air
- Exhausts heat directly from the cabinets, eliminating hot-air bypass
- Maximizes chiller plant efficiency by returning hot air for the highest possible return
- Eliminates temporary fixes like vinyl plastic sheeting with expertly manufactured chimneys and rack enclosures

Airflow Assessment Program

Geist's highly trained team of experts conducts a thorough site survey to identify key airflow trouble spots and recommend viable solutions in a customized Airflow Assessment Report. This assessment provides detailed insight into the efficiency of a data center's cooling circuit and summarizes the necessary steps to maximize cooling efficiency.

For details on conducting an Airflow Assessment in your data center, contact one of Geist's cooling experts at 800.432.3219 or sales@geistglobal.com.

ActiveAir™

Intelligent Airflow Management

Geist ActiveAir Containment System centers on two critical components: 1) containing heat and 2) expelling heat directly to the CRAC units. This two-step focus maintains and stabilizes the ideal temperature for data center equipment.

A. Custom Chimney

Geist ActiveAir chimneys exhaust the cabinet's hot air through the ceiling return plenum or to other desired locations. Geist accommodates most ceiling heights by offering adjustable chimneys and a variety of adjustable duct extender kits and fixed-length stackable ducts. Durable and easy to assemble, each chimney is made of powder-coated steel, matching most data center cabinets.

B. Intelligent Controller

The intelligent controller is the brains behind the Geist Cool ActiveAir system. It automatically adjusts fan speeds to exhaust exactly the right amount of air from the cabinet. The fan speed is controlled by information from the pressure sensors that compare pressure inside the cabinet with that in the room. The ActiveAir system works to maintain a zero differential between the two environments. The intelligent controller also records valuable temperature and performance data.

AA1001H

C. Fan Units

ActiveAir fan cartridges remove hot air to maintain air flow at the exact rate the IT equipment generates. Each fan unit is manufactured with best-in-class components to ensure maximum run life and unparalleled efficiency.



SwitchAir®

Network switches, load balancers and routers are often mounted in the back of a cabinet for more convenient cabling connections. Unfortunately, devices installed at the back of cabinets can be critically damaged or may go offline when they are fed pre-heated air from the servers. SwitchAir addresses this issue by delivering cool air to network devices regardless of where they are mounted. Switch Cooling products are available in a wide range of configurations and rack space sizes. Designed to work with 1U to 9U devices and beyond, SwitchAir Device Cooling channels air to every kind of intake/exhaust configuration imaginable.



Geist SwitchAir guides cool air to network devices mounted in non-ideal locations within the cabinet. Active fans may be incorporated to meet the demand of your space, airflow requirements and different configurations. To match network switches to the most compatible SwitchAir product visit geistglobal.com.

ClosetAir™ Cooling

Geist's ClosetAir system removes heat from a small space and sends it to the outside corridor or ceiling plenum return. The unit allows a room to breathe which leads to a perfectly controlled environment for small computer and network rooms using building air. The unit interfaces with temperature sensors to adjust fan speeds as temperatures rise and fall while providing visibility-to-cooling capacity, environmental information and alarms. ClosetAir's web interface provides remote access management of your device for superior visibility and full control of your environment.



The Geist ClosetAir system can be mounted to the wall or the ceiling for automated heat exhaust and critical monitoring and alerts. An optional Duct Kit can be added. ClosetAir fan enclosure dimensions are 21" W x 14" L.



Power Failure

Smoke Alarm

Auto-Dialer

Water

Door Position

Temperature/
Humidity/Dew Point



GEIST MONITOR

From temperature to humidity to airflow,
Geist climate sensors monitor critical
environmental conditions.

Environmental factors pose a severe threat to your mission-critical infrastructure. These dangers are minimized with a network of Geist sensors that collect and funnel information for easy visibility of your environment.

Geist's monitoring line of products allows users to observe conditions from a secure Web interface and receive simple network management protocol (SNMP), email or text messages when environmental sensors detect a problem.

Monitor



Temperature



Humidity/Dew Point



Airflow



Light



Sound



Amperage



Kilowatt-Hour(s)



Door Position



Smoke



Water Leaks



Power Failure



Voltage



Video Surveillance

Alerts



Allows users to observe conditions from a secure Web interface and receive SNMP, email, email-to-SMS* or voice alert notifications when user specified thresholds are breached.

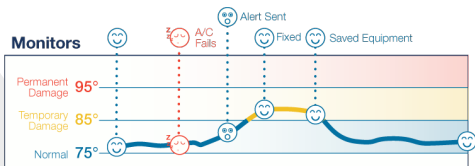
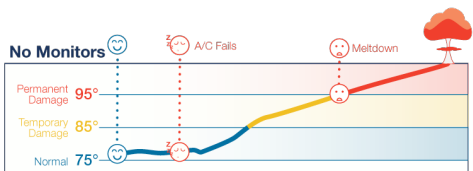
*Auto-dialer required

Climate Monitoring

Our solutions are fully scalable to match your specific environment.

Watchdog Appliances

- Watchdog 15, Watchdog 15-P
- Watchdog 100, Watchdog 100-P
- Watchdog 1200
- Watchdog 1250



Integrated Sensors

A complete range of analog and digital sensors are available to connect to Geist power strips and environmental monitors.

Digital Sensors

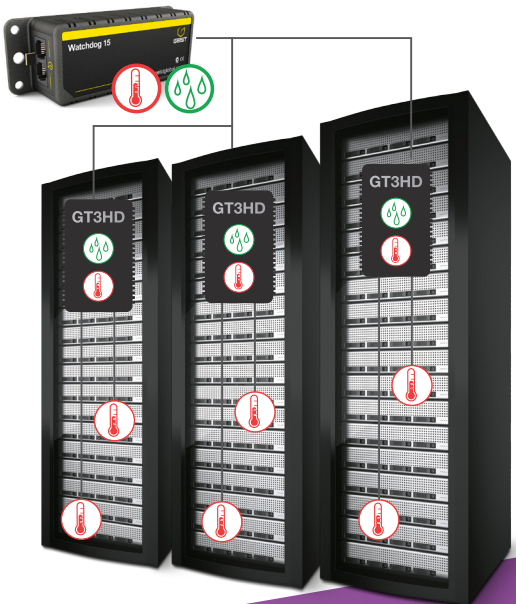
- Analog to Digital Converter
- Temperature, airflow, humidity, dew point sensors

Analog Sensors

- Smoke detectors
- Power failure sensor
- Direct current volts sensors
- Current transformer
- Door position sensor
- Leak detection cable and water sensor

Accessories

- -48 volt DC power supply
- 5-port splitter
- Auto-dialer
- Power over Ethernet splitter and injector





GEIST DCIM

A single point of access for managing mission-critical hardware



A Single Point of Access for Managing Mission-Critical Hardware

Data center management can be complex, but Geist DCIM's solutions simplify the process. Data Center Infrastructure Management (DCIM) consolidates disparate systems into one comprehensive pane of glass. DCIM can help cut costs and provide peace-of-mind to managers knowing that the data center is fully monitored. DCIM also helps increase efficiency and reduce data center downtime due to unexpected incidents. With the Environet and Racknet product lines, Geist DCIM is committed to providing high quality data center solutions as well as industry-leading customer service. Geist has the solutions to get the most out of data center processes.

DCIM Product Line

Environet Facility - Access to real-time, holistic information about power, environment, and process empowers users to proactively manage moves, adds, and changes. With unprecedented visibility and management over environmentals, power consumption and cooling, Environet Facility is the ultimate data center management solution.

Racknet - Optimizes manual processes in the data center and serves as a single access point to consolidate data center information. With comprehensive alarming and reporting functions, Racknet is the perfect tool to monitor SNMP devices.

Racknet Node Manager - A simple, entry-level DCIM solution for managing Geist devices. This low-cost solution provides a single aggregation point for real-time monitoring and trending.

Environet Facility

The Ultimate Monitoring and Management Solution

Environet Facility provides the data granularity required for efficient management of an enterprise data center. With unprecedented visibility and management over environmental, power consumption and cooling, Environet Facility transforms complexity into simplicity. Its interactive interface delivers critical information to drive knowledge-based decision making. Access to real-time, holistic information about power, environment and process empowers users to proactively manage moves, adds and changes. With Environet Facility, decisions are made with speed and confidence—not guesswork.

Features and Benefits

Real-Time Monitoring

Receive alerts for urgent warnings and alarms the second they occur. Real-time monitoring presents activity in a single facility, or an enterprise of data centers, in a single graphical view to immediately alert users of potential threats.

Capacity Planning

Whether it's power, cooling or physical space issues, Environet Facility gives users the ability to visualize and simulate the requirements for a data center expansion before actually moving a single cabinet or device.

Extensive Toolset

Facility and Data Center Managers rest easy knowing that equipment is closely monitored and managed. Feature rich tools such as tenant management, power one-lines and capacity planning help the user make intelligent decisions to improve data center performance.



Analytics & Reports

Create unique reports and dashboards to turn complex data into simple visualizations. Report on all devices and points in the Environet system to compile meaningful data for critical business decisions.

Global Visualization

View the global enterprise using one comprehensive view. Perform quick health checks on data centers without having to delve into individuals locations.

API & Integration

Geist's RESTful API provides a simple, reliable and scalable solution for businesses looking to share information between multiple software systems. The API platform ensures that Environet and other business management systems work together as effectively as possible.



Comparison Chart

	Environet	Racknet
Communication		
SNMP	•	•
BACnet	•	-
Modbus	•	-
LONworks	•	-
Hardwired I/O	•	-
API	•	•
Design and Configuration		
System Configuration	turn-key	user
Vendor Neutral	•	•
Consulting Services	•	*
Professional Installation	•	*
Support Contact	•	•
Features		
Real-time Monitoring	•	•
Notifications and Alarms	•	•
Business Analytics	•	•
Energy Cost Analysis	•	*
Power One Line	•	-
PUE/DCIE	•	*
Unique Floor Plans and Views	•	*
Key Performance Indicators	•	*
Power Capacity Planning	•	-
Asset Management	•	-
Integration		
Raised Floor/White Space	•	•
Electrical/Mechanical Rooms	•	*
Fire Suppression Systems	•	*
Building Management Systems	•	*
Security Systems	•	*
Other Custom Systems	•	-
Workflow Management Systems	•	-

*Contact Geist DCIM for customized product options

Geist Delivers Efficiency, Reliability and Excellent Customer Service

Whether Providing a Single PDU
or Fully Integrated Data Center
Infrastructure Solution.





Geist is known for its PDU pedigree, fast custom delivery and excellent customer service, offering thousands of power strips available in 3-5 days.



Airflow solutions that push the envelope and deliver cost savings of 40% over conventional data center cooling, including network switches and closets.



Monitor and track critical environmental points in data centers to produce an efficient and well-maintained environment; maximizing uptime.



Provide a single pane of glass to real-time monitoring, predictive future capacity, and analytics to maximize efficiency and optimize costs.



GEIST

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