DRIVEN BY POSSIBILITY™

GATES DATA CENTER COOLING SOLUTIONS

STAY AHEAD OF THE GAME WITH ADVANCED COOLING SOLUTIONS

The amount of power needed to process the large quantities of data for AI technologies and cloud computing generates a significant amount of heat. This requires robust cooling systems to maintain optimal performance.

As data centers expand, the combined heat produced by densely packed servers and networking equipment can reach critical levels. Gates is leading the way in developing cutting-edge solutions to provide superior heat management and meet those growing demands.

THE GATES DIFFERENCE

- Experts in thermal management, materials science, and fluid conveyance in critical applications
- Variety of liquid cooling hoses and nylon tubing to accommodate different system requirements
- Compact and efficient electric water pumps provide a higher power-to-volume ratio
- Reliability and quality are designed into our products to maximize uptime

DISCOVER THE ULTIMATE IN COOLING TECHNOLOGY

GATES DATA MASTER™ DATA CENTER COOLING HOSE

The Gates Data Master Data Center Cooling hose keeps your data center operational in the toughest conditions with a specially-compounded tube to avoid fluid contamination. Extend the life of your equipment by choosing the right hose for the job.

CLEANER SYSTEMS
Zinc-free Peroxide Cured EPDM tube to avoid fluid contamination over time

NARROW PROFILE
Smaller diameter for installation when space is constrained

FLAME-RESISTANT
Meets UL224 VW-1 and UL94V-0 standards

SUPERIOR FLEXIBILITY
For easier routing in complex configurations

COOLANT COMPATIBLE
Built for a wide range of coolant mixes, including PG25

OZONE-RESISTANT
Excellent ozone resistance to cover degradation from electronics

Construction	**Tube:** Zinc-Free Peroxide-Cured EPDM **Reinforcement:** Braided, synthetic textile **Cover:** EPDM (Black), Flame-Resistant
Common applications	High-density liquid cooling systems: providing reliable cooling in densely-packed environments
Temperature range	-40°C to +100°C (-40°F to +212°F)

OAK RIDGE NATIONAL LABORATORY

The Oak Ridge National Laboratory is a federally-funded research and development center located in eastern Tennessee. The ORNL features the Summit SuperComputer, which was installed in 2018 as the fastest computer in the world at the time, performing at 200,000 trillion calculations per second. Summit features industry-leading servers which are cooled by Gates Data Center Cooling Hoses.

GATES DATA CENTER
COOLING SOLUTIONS

ELECTRIC WATER PUMP PRODUCT FAMILY

ELECTRIC WATER PUMP LINEUP					
	12-20W PLATFORM	**30-50W PLATFORM**	**50-100W PLATFORM**	**100-150W PLATFORM**	**100W-7000W PLATFORM**
Motor	Single Phase BLDC Motor (Radial Flux)	Three Phase BLDC Motor (Radial Flux)	Three Phase BLDC Motor (Radial Flux)	Three Phase BLDC Motor (Radial Flux)	Three Phase BLDC Motor (Axial Flux)
Control strategy	IO PWM REVERSE CONNECTION	PWM,LIN,CAN PROTECTION FUNCTIONS ■ BUS voltage ■ Over temperature ■ Reverse connection ■ Over current ■ No load and over load ■ Locked rotor	PWM,LIN,CAN PROTECTION FUNCTIONS ■ BUS voltage ■ Over temperature ■ Reverse connection ■ Over current ■ No load and over load ■ Locked rotor	PWM,LIN,CAN PROTECTION FUNCTIONS ■ BUS voltage ■ Over temperature ■ Reverse connection ■ Over current ■ No load and over load ■ Locked rotor	PWM,LIN,CAN PROTECTION FUNCTIONS: ■ BUS voltage ■ Over temperature ■ Reverse connection ■ Over current ■ No load and over load ■ Locked rotor
Coolant temperature	-40°C to +120°C (-40°F to +184°F)				
Ambient temperature	-40°C to +135°C (-40°F to +209°F)				
Features and benefits	■ DC brushless motor ■ Low power consumption ■ Low noise ■ Good damping effect ■ Easy to install	■ DC brushless motor ■ FOC control, high efficiency ■ Low noise ■ Large scalability ■ Easy to install	■ DC brushless motor ■ FOC control, high efficiency ■ Low noise ■ Large scalability ■ Low temperature rise ■ Easy to install	■ DC brushless motor ■ FOC control, high efficiency ■ Low noise ■ Large scalability ■ Low temperature rise ■ Easy to install	

THERMAL-FORMED NYLON TUBING SOLUTIONS

Gates offers several options of smaller profile, custom thermal-molded nylon tubing in alternate colors for tight routings.

OIL-BASED AND LARGE I.D. HOSE SOLUTIONS

Gates offers a wide variety of fluid conveyance solutions to meet data center requirements, including oil-based solutions compatible with dielectric oil and flexible larger diameter solutions.

GATES POWER TRANSMISSION
PRODUCT FAMILY

QUAD-POWER™ 4

A premium maintenance-free premium V-belt that delivers unmatched power density, fitting into compact spaces while driving fans, pumps, and compressors with up to 98% total power efficiency.

With Gates Quad-Power 4, you're investing in a long-lasting solution that eliminates retensioning downtime and reduces replacement cycles, allowing your team to focus on the job without interruptions.

MAINTENANCE-FREE
Superior products remove the need to retension the belt drive after installation

ETHYLENE ELASTOMER (EE)
EE rubber compound ensures long-lasting performance and wear-resistance

TEMPERATURE-RESISTANT
Wide temperature range for an extended lifespan in extreme conditions

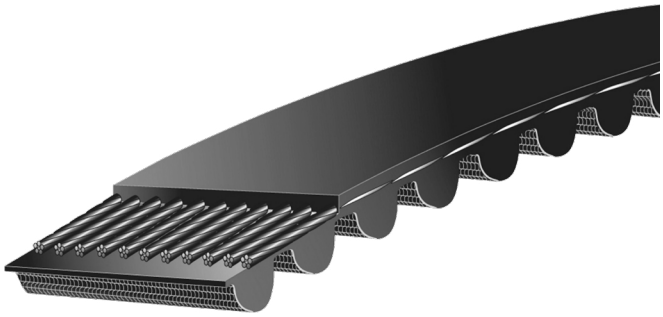
STATIC-CONDUCTIVE
Prevents damage to equipment in sensitive environments

OIL-RESISTANT
Made to withstand temporary contact with oil without being damaged

LENGTH-MATCHING
Superior belt tolerance allows multiple belts to be installed on the same drive

POLY CHAIN® CARBON™ VOLT™

When your data center faces peak operational demands, Poly Chain Carbon Volt synchronous belts handle the heaviest loads with ease. Ideal for demanding applications such as high-torque HVAC systems and large-scale coolant pumps. The patented use of carbon fiber tensile cord provides increased horsepower rating for greater power density and compactness.



MAINTENANCE-FREE
Superior products remove the need to retension the belt drive after installation

DURABLE CONSTRUCTION
Polyurethane materials that resist chemicals, oil, pollutants and abrasion

CARBON TENSILE CORD
Robust cord combines minimal stretch with strength and load-carrying capacity

TEMPERATURE-RESISTANT
Wide temperature range: -54°C to +85°C (-65°F to +185°F)

STATIC-CONDUCTIVE
Prevents damage to equipment in sensitive environments

GT TOOTH PROFILE
Provides high shear strength and improved load carrying capacity

CLICK OR SCAN TO EXPLORE MORE DATA CENTER COOLING SYSTEMS

ASK YOUR GATES REPRESENTATIVE FOR MORE INFORMATION

GATES.COM
E2/50256