



DRIVEN BY POSSIBILITY™

# THERMALPRO™ ELECTRIC WATER PUMPS



Our ThermalPro electric water pumps are expertly engineered to maximize fluid flow in a compact design while being energy efficient and reliable.

## ELEVATE THE POWER, **REDEFINE THE LIMITS**

From the early days in thermal management, we have always been a step ahead - leading the charge to keep critical systems running.

AXIAL FLUX  
MOTORS ARE UP TO

**25%**  
**MORE EFFICIENT**

THAN TRADITIONAL  
MOTORS




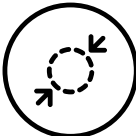



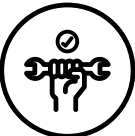
## FEATURES AND BENEFITS

- **High-efficiency cooling:** Maximizes coolant flow, reducing energy consumption and operational costs
- **Improved cooling density:** Effectively manages greater heat transfer in compact environments
- **Modular and scalable:** Adapts to various Coolant Distribution Unit configurations
- **Detection capability:** Monitors for systems issues such as cavitation, air bubbles, or blockages

## LEGACY OF LEADERSHIP

Gates has a rich history of innovation in thermal management, beginning with automotive cooling systems and extending to industrial HVAC systems. This experience has positioned the company at the forefront of maintaining critical systems. With over a century of expertise, Gates has now adapted its advanced thermal management solutions to address the complexities of data center cooling systems. This evolution reflects our commitment to staying ahead of industry demands and ensuring optimal performance in critical environments.



ELECTRIC WATER PUMP PRODUCT FAMILY				
SINGLE PHASE RADIAL FLUX MOTOR	THREE PHASE RADIAL FLUX MOTOR	THREE PHASE AXIAL FLUX MOTOR		
				
LOW POWER < 30W	MID POWER 30W - 100W	HIGH POWER 100W - 2500W		
FLOW RATES UP TO ~20 L/MIN	FLOW RATES UP TO ~35 L/MIN	FLOW RATES UP TO ~400L/MIN		
FEATURES AND BENEFITS				
 <b>SCALABILITY</b> Effortless adaptability to diverse data center configurations	 <b>LEAK-PROOF DESIGN</b> Offers long-term reliability by intentionally eliminating leak and failure points	 <b>INTEGRATED MONITORING</b> Provides real-time feedback, enabling proactive maintenance and boosting system uptime	 <b>REDUCED NOISE LEVELS</b> It reduces typical vibrations and mechanical friction, ensuring a quieter environment	 <b>EASY TO INSTALL</b> Its small body and light weight make it easy to integrate into complex cooling systems

# A COMPLETE SOLUTION FOR LIQUID COOLING SYSTEMS



## LIMITED AND CONSTRAINED PACKAGING SPACE TO GET HIGH COOLANT FLOW

Gates ThermalPro pumps overcome this challenge with its compact design, thanks to innovative axial flux technology. This design enables a “flat” packaging with a remarkable R<sup>3</sup> power increase, fitting seamlessly into tight spaces while delivering high coolant flow.



## COOLING SYSTEM VULNERABILITY TO SYSTEM FAILURES\*

Our product is equipped with integrated monitoring that keeps a vigilant eye on potential issues. By detecting air bubbles, blockages, cavitation, and low coolant levels early on, it triggers system-level alerts to address problems before they escalate, safeguarding the cooling system’s efficiency and reliability.



## NEEDS FOR IMPROVED ENERGY EFFICIENCY

To enhance energy efficiency, our ThermalPro axial flux designs reduce air gaps in the motor and optimizes every watt of power for maximum performance. This clever design reduces friction and energy consumption, ensuring that every watt of power is effectively used for optimal coolant flow.



## RELIABILITY CONCERNS DUE TO COOLANT LEAKAGE

Addressing these concerns, the ThermalPro features a mechanical seal that separates the wet and dry sides of the pump. This robust solution prevents leakage, ensuring consistent and reliable operation.



## DESIGN REQUIREMENTS TO ELIMINATE LEAK POINTS

Our design isolates weep holes. This innovative approach removes potential leak points, enhancing the pump’s overall reliability and reducing maintenance needs.



## COMPATIBILITY IN HIGH VOLTAGE SYSTEMS

ThermalPro electric water pumps are engineered to be versatile, offering solutions to serve systems operating between 12v to 800v. This adaptability ensures that they integrate seamlessly into various high voltage applications, meeting diverse cooling needs with ease.



## COMPATIBILITY WITH MULTIPLE COOLANT TYPES

The full product lineup is compatible with all glycol-based coolants and dielectric coolants. In addition, these pumps can perform in immersive cooling environments when used with dielectric coolant types.

\*Not available on all models.



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EXPLORE MORE DATA  
CENTER COOLING SYSTEMS**

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REPRESENTATIVE FOR  
MORE INFORMATION**