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# Increase precision, efficiency and safety

## Siemens tiastar™-H<sub>2</sub>O: Driving profits for the water/wastewater industry

### Siemens tiastar™-H<sub>2</sub>O Motor Control Center – Designed for superior performance in municipal water systems

In the water and wastewater industry, the demands on the energy distribution and automation systems in water and wastewater treatment plants, pump stations and desalination plants are steep. Moreover, the need to achieve the highest level of safety and energy efficiency weighs heavily on a plant's daily operation. The Siemens tiastar-H<sub>2</sub>O Motor Control Center (MCC), equipped with Variable

Frequency Drives (VFDs) and (optional) arc flash protection through Siemens Arc Resistant MCC design, allows you to operate a plant with greater cost-effectiveness, efficiency and safety over the entire life cycle.

With tiastar-H<sub>2</sub>O, Siemens addresses the needs of the municipal and private water markets, ensuring that water flows to meet your operational goals. Robust performance is matched by standout energy efficiency. In addition, user-friendly asset management features and predictive diagnostics enable quick resolution of production issues.

### Optimize process efficiency with variable-speed drive technology

The tiastar-H<sub>2</sub>O with variable frequency drives offers these benefits for water/wastewater treatment processes:

Energy Savings	Cost Saving	Preserves Asset	Saves Time
<p>Integrated variable frequency drives (VFDs) control energy waste.</p> <ul style="list-style-type: none"><li>■ Adjust motor speed according to system flow requirements</li><li>■ Optional Harmonic Filters to control harmonic current distortion</li><li>■ Achieve power factor closer to unity</li></ul>	<p>With reductions in energy and operating costs, VFDs can provide a quick return on investment.</p> <ul style="list-style-type: none"><li>■ Operating motors at lower speeds reduces energy costs</li><li>■ Mounting VFDs inside the MCC eliminates duplicate components and unnecessary wiring and labor costs</li></ul>	<p>VFDs integrated in the MCC extend the life of capital assets.</p> <ul style="list-style-type: none"><li>■ Reduces wear and tear of dry running and overload</li><li>■ Advanced controls and absence of moving parts needing repairs lengthen mechanical life</li></ul>	<p>The flexible modular design of the MCC allows easy modification of VFD systems.</p> <ul style="list-style-type: none"><li>■ Easily expand loads, reconfigure units or upgrade process</li><li>■ Units can be rearranged in any order before or after installation to consolidate controls or accommodate expansion</li></ul>

**Answers for industry.**



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### Siemens tiastar Arc Resistant MCC meets highest safety standards

Safety in water/wastewater plants is of utmost concern, and regulations put increasing pressure on water utilities to protect workers. Siemens has taken industry-leading steps to achieve greater protection against arc flash hazards. The Siemens tiastar Arc Resistant Motor Control Center is the industry's first MCC tested to the ANSI/IEEE C37.20.7 testing guide, with UL representatives present to witness the testing procedures.

The tiastar-H<sub>2</sub>O's superior arc-resistant design offers these benefits:

#### Increased Safety

The Siemens H<sub>2</sub>O tiastar Arc Resistant MCC's arc-resistant design lowers the risk of electrical shock and exposure to arc flash incident energy.

#### Passive Design

The MCC does not rely on secondary devices to contain arc flash energies. Its robust structural and bus design, including isolated horizontal and insulated vertical bus design, withstands arc flash incident energy.

#### Asset Preservation

The Siemens tiastar Arc Resistant MCC offers protection to reduce damage to nearby equipment in the event of incident, which saves repair and replacement costs.

### Optional motor management adds intelligence and protects assets

The tiastar-H<sub>2</sub>O can be equipped with an optional SIMOCODE pro motor management system to protect equipment and avoid costly downtime. SIMOCODE pro monitors motor performance in real time, enabling instant fault protections and proactive problem prevention.

SIMOCODE pro motor management system offers these benefits:

#### Transparency

Increased transparency and visibility into your process allows monitoring of motor performance for faster problem resolution and reduced maintenance costs.

#### Asset Protection

Tracking deterioration in pumps and motors allows preventive maintenance and extends the life of equipment.

#### Energy Savings

Monitoring power factor and consumption helps manage power and reduces energy costs.

To find out more about how Siemens tiastar MCCs deliver solutions for the water and wastewater industry, contact your Siemens representative today.

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