GRC® Releases the Next Generation of Data Center Liquid Immersion Cooling, Providing Increased Sustainability Capable of Delivering a PUE Yield of <1.03 and a Significant Reduction in Operating Costs

With the capacity to cool more than 200 kilowatts, the ICEraQ® Series 10 boasts redesigned racks, adding features for enhanced usability and performance for multi-rack deployments

AUSTIN, TX – May 18, 2021 – GRC (Green Revolution Cooling®), the leader in single-phase liquid immersion cooling for data centers, today announced the latest redesign of its immersion cooling solutions: ICEraQ Series 10. Redesigned based on data from more than ten years of customer installations, the Series 10 was built to deliver improved energy efficiency, performance, and usability, as well as integrate additional features.

Sustainability continues to be top of mind for today's enterprise data center operators — and the Series 10 was designed with this in mind. As such, it provides unprecedented cooling capacity while at the same time decreasing total data center energy usage by up to 50%, delivering an ultra-efficient PUE of <1.03, and reducing server power by 10-20% (by disabling or removing server fans). As an added benefit, it accomplishes all this in a reduced footprint (eliminating CRACs & CRAHs), while maintaining a stable thermal environment.

The Series 10 immersion cooling system is a modular design which allows units to be positioned end-to-end, saving even more floorspace. It features an integrated containment area, eliminating the need for external containment decks; and is designed to optimize floor space utilization, allowing for the greatest number of racks without a walkway. CDU capacity has increased to 200 kilowatts with warm water and up to 368 kilowatts with chilled water, as well as the potential for at least a 50% larger brazed plate heat exchanger for even higher power future applications.

Next month, the Series 10 will be deployed at the Texas Advanced Computing Center (TACC). GRC and TACC have a 11-plus year relationship with immersion cooling, including cooling the GPU-intensive subsystem of their Frontera supercomputer — the 9th fastest supercomputer in the world.

The Series 10's racks have 42U of space for servers and can accommodate up to four PDUs mounted at the rear of the rack. All ITE networking and power connections are easily accessible

simply by opening the top lid — no tools required. The smaller footprint cools 2200 watts per square foot with warm water and even more with chilled water, quadrupling the previous ICEraQ offering.

Since the Series 10 utilizes the operator's current data center footprint, the CAPEX needed for expansion or relocation is essentially eliminated. Additionally, given the efficiency inherent with liquid immersion cooling, operating expenses are reduced by utilizing less server power and cooling more efficiently than air cooling — even at densities as low as 15 kilowatts per rack.

"Since its founding, GRC has strived to design products to serve the data center industry's current and future cooling needs. With companies such as Microsoft adopting liquid immersion cooling for high-density computing applications, our vision of re-imagined data center cooling is further validated." said Peter Poulin, CEO, GRC. "As the next generation of data center immersion cooling solutions, the Series 10 builds on our successful deployments and customer input to improve usability and functionality, with an easy-to-use rack design and a clean aesthetic. It's exciting to bring a new form into the market and we look forward to offering this immersion cooling solution to customers struggling with data center cooling challenges."

To further provide cooling peace-of-mind, the Series 10 control system monitors for leaks, and provides real-time information on water and coolant temperatures, as well as pressure, coolant pump power consumption, and coolant pump speed. To maintain consistent cooling without the data center manager intervening, the internal logic adjusts pump speed to maintain optimal performance with the least possible power use. Internal logic can also assess system health and provides early fault detection.

Other highlights of the Series 10 include:

- 2N redundant CDU available
- 10% TCO improvement over the previous generation
- 18% CAPEX reduction over the previous generation
- Remote monitoring through Schneider Electric's Machine Advisor DCIM
- Water control valve
- Filters can be maintained with no downtime
- Cool coolant enters at bottom of rack

The Series 10's appearance has been updated to include radiused edges and uniform surfaces, while the cosmetic panels provide a clean exterior that disguise cables and plumbing.

To see the Series 10 in action, you can view the video here.

About GRC
GRC is The Immersion Cooling Authority®. The company's patented immersion-cooling technology radically simplifies deployment of data center cooling infrastructure. By eliminating the need for chillers, CRACs, air handlers, humidity controls, and other conventional cooling components, enterprises reduce their data center design, build, energy, and maintenance costs. GRC's solutions are deployed in twenty countries and are ideal for next-gen applications platforms, including artificial intelligence, blockchain, HPC, 5G, and other edge computing and core applications. Their systems are environmentally resilient, sustainable, and space saving, making it possible to deploy them in virtually any location with minimal lead time. Visit http://grcooling.com for more information.