

Quad | Duo





High-Efficiency, Scalable, Rack-Based, Green Cooling Solutions for Data Centers





Our Deployments Are in Twenty Countries Across the Globe















GRC immersion cooling drives mission-critical systems for these and many more organizations.

Our ICEraQ line of micro-modular immersion cooling systems offers breakthrough potential in rack density, location flexibility, and capacity planning, while also reducing the expense of building, running, and expanding a data center. It needs no energy-intensive air conditioners, oversize generators, or raised floors. As a result, it enables rapid deployment of super-reliable, chilled, or chiller-free cooling right where you want it. And with GRC's Earth-friendly focus, the ICEraQ Series 10 products bypass the limits set by predecessors while advancing sustainability.

Features & Benefits

- Cuts cooling energy by up to 95%
- Provides a pPUE of <1.03
- Lowers upfront costs by 50%
- Reduces server power draw 10-20%
- Cools up to 184 kW/rack¹
- Compatible with leading OEM servers
- Fast deployment: typically within three months

Common Applications:

- Overcome space or power constraints
- · Surmount rising energy costs
- · Integrate high-density racks
- · Deploy capacity quickly
- · Reduce data center build costs
- Take full advantage of virtualization benefits
- Support sustainability/green goals

Includes:

- Rack(s) filled with our high-performance, synthetic ElectroSafe® coolants
- Coolant distribution unit (CDU)
- · Assured reliability with 2N-redundant pumps and control system
- · Schneider Electric's Machine Advisor cloud based and local monitoring capabilities with configurable PagerDuty email alerts
- Integrated cable management
- · Service bars for easy, in-rack server maintenance

Scaleable

• Limited warranty, 24/7 on-call support and remote monitoring



Flexibility



Supports High Density



Easy To Adopt & Use



Cost-Effective



Deployment

ICEraQO Quad | Duo



Client to Provide

Infrastructure / Site Requirements

Access to power & water



Product Specifications	/	<i>CEraQ</i> 0 Quad	<i>ICEraQ<mark>o</mark></i> Duo		
Number of Immersion Cooled Racks		4	2		
Number of Cooling Distribution Units (CDU)		Integrated	Integrated		
Chiller-Free Water @ 32° C (89. Cooling Capacity Per Rack Density	.6°F)	200 kW 50 kW	200 kW 100 kW		
Chilled Water @ 13° C (55.4°F) Cooling Capacity Per Rack Density		368 kW 92 kW	368 kW 184 kW		
Partial PUE ²		<1.03	<1.03		
Redundancy ³		Coolant pumps Control system:			
Overall Dimensions (I x w x h) ⁴ Series 10 Quad Series 10 Duo	5.09 m x 1.68 m x 1.42 m (200.38" x 66.25" x 56") 2.92 m x 1.68 m x 1.42 m (115.25" x 66.25" x 56")				
Floor Loading (Operational) ⁵	822 kg/n	n² (168 lbs/ft²)			
Power & Water Specifications					
Final Heat Rejection Options	Flexible Options: • Adiabatic/evaporative cooling tower • Dry cooler • Chilled water loop				
Water Requirements	Possible water input temperature: • 5 to 32°C (41 to 89.6°F) Recirculating water flow rate: • 21 to 30 m³/hr (50 to 150 gpm) Connections: • 50.8 mm (2.0") FNPT or hose barb				
Power Requirements	each wit • 3 Phase OR 380	trical feeds (prin h the following c e 200 to 240 VA O to 480 VAC, 50 wer consumptic	C, O to 60 Hz		

		Level installation surface with slope < 1/650 (raised floor or concrete slab)		
	Operating Guidelines	Ambient temperature 5 to 40°C (41 to 104°F)		
		Secondary containment		
		Standard data center fire suppression		
	Monitoring and	Reporting		
	Platform	Schneider Electric's Machine Advisor cloud-based DCIM and local DCIM hooks		
	Alerts	Configurable email alerts with PagerDuty application		
	DCIM/BMS Integration Protocols	Modbus, BACnet, and RESTful API		
	Data & Measurements	Operating temperatures (water and coolant)		
		Operating pressures (water and coolant)		
		Primary coolant pump power consumption		
		Primary coolant pump speed		
		Rack temperatures		
		Liquid level (multiple locations)		
		System health, diagnostics, and early fault detection		
Delivery & Installation				
	Lead Time	Typically ships within three months of receipt of purchase order		
	Shipping Terms	Ex-Works		
	On-site Installation & Training	Three days for the first unit, plus two days for every subsequent unit		
	Warranty ⁶			
	One-Year, Limited Warranty Includes	 24/7 On-call GRC technical support staff 24/7 Remote monitoring Worldwide on-site response for parts and labor Regular maintenance as required 		
	Extended warranty and additional cost.	maintenance agreements are available at an		
Compatible with All Leading OEM Servers				





Utilizing a chilled water system.
General specification.
Additional redundancy options available.
Underfloor CDU option for space constrained sites.
Does not include weight of IT equipment and accessories.
Warranty is void if ICEraQ units are run outside of their operating parameters defined in the installation specification.



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