ICEraQ10 Quad | Duo

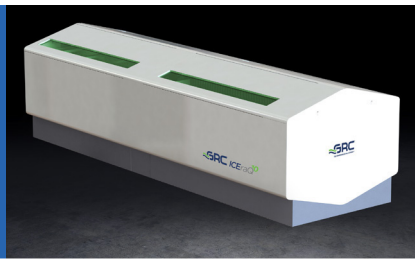
ICEraQ® One

GRC GREEN REVOLUTION COOLING
The Immersion Cooling Authority

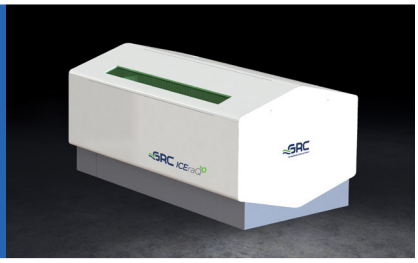
PRASA

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

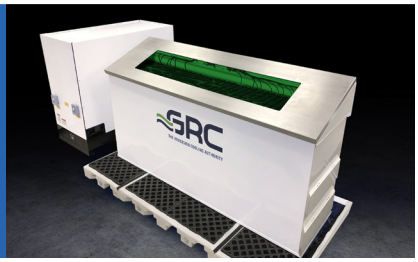
Quad
Up to 92 kW per rack



Duo
Up to 184 kW per rack



One
Up to 200 kW per rack



Our Deployments Are in Twenty Countries Across the Globe

Tokyo Institue of Technology

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. The ICEraQ Series 10 products have bypassed the limits set by predecessors with an increased focus on being Earth-friendly.

Features & Benefits

- Cuts cooling energy by up to 95%
- Provides an pPUE of <1.03
- Lowers upfront costs by 50%
- Reduces server power draw 10-20%
- Cools up to 200 kW/rack [1]
- Compatible with all 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 systems
- Schneider Electric's Machine Advisor cloud based and local monitoring capabilities with configurable PagerDuty email alerts
- Integrated cable management
- Rack-mounted rails for easy server maintenance
- Limited warranty, 24/7 on-call support and remote monitoring

Location Flexibility

Supports High Density

Easy To Adopt & Use

Quick Deployment

Scaleable

Cost-Effective

Green/ Sustainability

Experience the Freedom to Add High Density Compute Capacity Anywhere — Easily

+1.512.692.8003 • info@grcooling.com • grcooling.com

+91 8806660084 www.prasa-pl.com enquiry@prasa-pl.com

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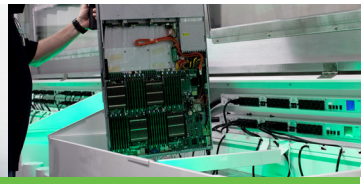

Product Specifications

	ICEraQ10 Quad	ICEraQ10 Duo	ICEraQ® One
Number of Immersion Cooled Racks	4	2	1
Number of Cooling Distribution Units (CDU)	Integrated	Integrated	1
Chiller-Free Water @ 32° C (89.6°F)			
Cooling Capacity	200 kW	200 kW	100 kW
Per Rack Density	50 kW	100 kW	100 kW
Chilled Water @ 13° C (55.4°F)			
Cooling Capacity	368 kW	368 kW	200 kW
Per Rack Density	92 kW	184 kW	200 kW
Partial PUE [2]	<1.03	<1.03	<1.03
Redundancy [3]	Coolant pumps: 2N Control system: 2N		
Overall Dimensions (l x w x h)[4]			
Series 10 Quad	5.09 m x 1.68 m x 1.42 m (200.38" x 66.25" x 56")		
Series 10 Duo	2.92 m x 1.68 m x 1.42 m (115.25" x 66.25" x 56")		
ICEraQ One			
42U Rack - Deep	2.2 m x 0.8 m x 1.5 m (85" x 30.5" x 60")		
52U Rack	2.6 m x 0.7 m x 1.4 m (103" x 28.25" x 54.25")		
CDU	1.6 m x 0.8 m x 1.5 m (63" x 30" x 58")		
Floor Loading (Operational)			
Series 10 Quad/Duo	822 kg/m² (168 lbs/ft²)		
ICEraQ One			
42U Rack - Deep	1,123 kg/m² (230 lb/ft²)		
52U Rack	952 kg/m² (195 lb/ft²)		
CDU	244 kg/m2 (50 lb/ft2)		

Power & Water Specifications

Final Heat Rejection Options [5]	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	Two electrical feeds (primary & secondary) each with the following characteristics: • 3 Phase 200 to 240 VAC, OR 380 to 480 VAC, 50 to 60 Hz • Max power consumption Series 10 Quad/Duo: 5.6kW ICEraQ One: 2.3 kW

[1] Utilizing a chilled water system.
[2] General specification.
[3] Additional redundancy options available.
[4] Underfloor and low profile CDU available for space constrained sites.
[5] Low water use options available in climates where the design dry bulb temperature does not exceed 32°C (89.6°F) for ICEraQ One.
[6] Warranty is void if ICEraQ units are run outside of their operating parameters defined in the installation specification.

Infrastructure / Site Requirements

Client to Provide	Access to power & water 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 DCIM 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	Heat Load 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 maintenance agreements are available at an additional cost.

Compatible with All Leading OEM Servers

Hewlett Packard Enterprise · Powered by Dell Technologies · Supermicro · sgi · intel · IBM · Western Digital · NVIDIA · iXsystems · Penguin Computing · Gigabyte Technology · AMAX · Quanta Computer · PCPC Direct · 2crsi · Cisco

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PRASA

11525 Stonehollow Drive, Suite A-135 Austin, TX 78758
+1.512.692.8003 • info@grcooling.com • grcooling.com

+91 8806660084 www.prasa-pl.com enquiry@prasa-pl.com