



EcoStruxure™ Modular Data Centers with Liquid Cooling for Edge Applications

Liquid-Cooled Modular Data Center

The liquid-cooled modular data center is engineered to be resilient, reliable, and can be built to customer specific requirements. **Modular data centers** come in 20' and 40' ISO container lengths, but can also be extended to 45' NON-ISO container lengths.

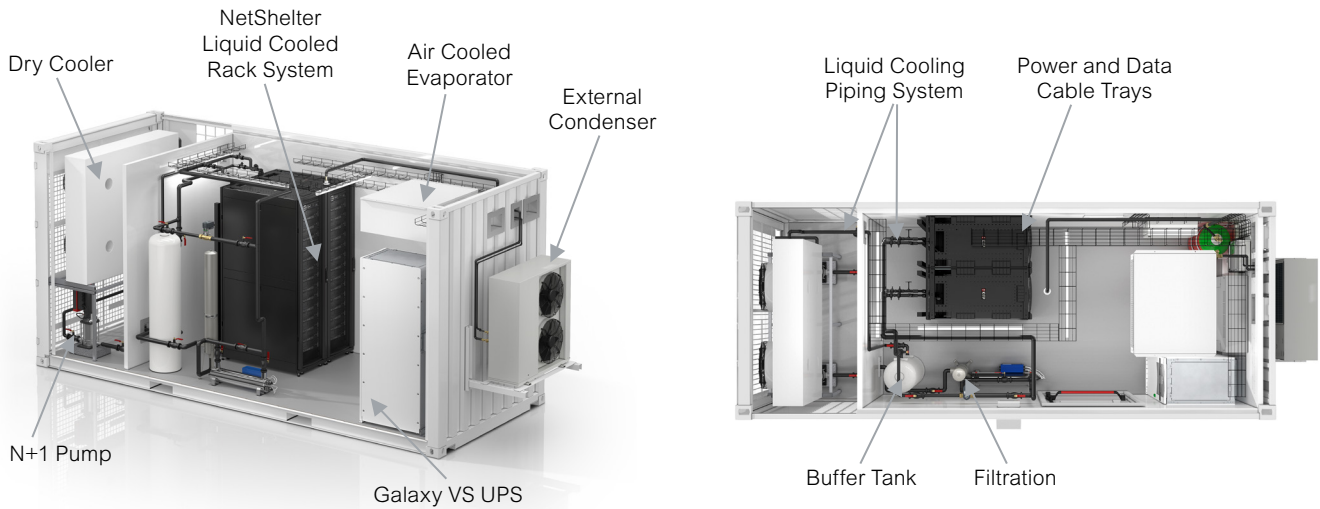
- Our **liquid-cooled** modular solutions can easily accommodate the increasing heat loads from the latest processor roadmaps – from relatively modest densities through to 60kW per rack. Custom solutions are available for up to 100kW per rack.
- Liquid cooling allows for double the IT capacity and over 50% efficiency improvement compared to the equivalent air cooled modular solution.
- This design supports **Iceotope** chassis-level immersion cooling. Because the servers are 100%sealed, protected, resilient and thermally stable over a wide range of operating temperatures, they can be deployed in the harshest environments.

Benefits

- **Predictable Performance**
Factory-built infrastructure that can be deployed anywhere in the world without the variability local resources and construction. Integrated with **Ecostruxure management software** allows for remote management of deployment for complete peace-of-mind.
- **Faster Deployment**
Prefabricated modules simplify the planning, construction, implementation, and allow service and content providers to easily respond to the anticipated demand from 5G technology.
- **Flexible Design**
Deploy compute capacity at the edge regardless of availability of space or site infrastructure.

EcoStruxure Modular Data Center Liquid Cooling All-in-One Reference Design

Quick Reference Sheet (400V, 50Hz)



20' All-in-One 60kW, 2 Liquid Cooled Racks

Racks	
Enclosure Type, Qty	NetShelter Liquid Cooled Rack, 48U 600mm x 1460mm (2)
Liquid Cooling Type	Iceotope chassis-level immersion cooling, up 16 chassis per rack
Cooling	
Liquid Cooling System	45C max supply temp, N+1 pumps, 20 Micron filtration, UV water treatment
Supplemental Air cooling	12kW overhead split DX, non-redundant
Power	
Input/output Voltage	400V AC, 3 Phase, 50 Hz - 230V
Total IT Load	60kW (2 racks at 30kW per rack)
Rack Distribution	AP8888 Rack PDU 2G, Metered, Zero U, 23.0kW, 240V, (30) C13 & (12) C19 (2 per rack)
UPS	Galaxy VS All-In-One, 80kW, non-redundant, battery: 5 min VRLA Smart Modular
Monitoring	
Module Systems	Netbotz 250 with EcoStruxure IT Expert Software
Iceotope Chassis Immersion System	Redfish® compliant RESTful API
Safety	
Fire Suppression and Detection	Novec 1230, Agent Releasing Control panel with smoke/heat detection, and audible strobe/alarms
Exits	1 Primary
Monitoring	Netbotz 250 with EcoStruxure IT Expert Software
Physical	
Exterior Dimensions L/H/W	6096mm/2896mm/2425mm
Outdoor operating conditions	-10 to 40C (alternative designs available for various conditions)
Partial PUE	1.03 annualized, Paris France
Water Usage	0

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