
intelliflex
Innovative Data Solutions
OCTOPOD

OCTOPOD

MODULAR DATA CENTER

Scalability

Our modular solution offers unmatched scalability, allowing for seamless expansion of your infrastructure to meet your growing capacity, ensuring optimal performance and efficiency at every stage.

Density

OctoPod offers exceptional density, matching the ever growing computing demand, while maintaining efficiency and minimizing infrastructure footprint thanks to our innovative modular design.

Serviceability

Serviceability and redundancies were key considerations when OctoPod was designed, making for ease of operation & maintenance, allowing for maximum uptime.

Efficiency

Achieve unparalleled efficiency with OctoPod. The cutting-edge liquid cooling system ensures maximum performance while minimizing energy consumption, and reducing your operational costs.

Flexibility

Experience limitless possibilities with OctoPod's innovative modular design. Whether you prefer traditional or liquid cooling, our system seamlessly accommodates all leading computing hardware available on the market.

Industrial build quality

Built to the highest industrial standards and features top-tier product selection, the OctoPod sets the quality benchmark in the industry. Trust our robust design to deliver consistent performance and longevity for your data center infrastructure.

SYSTEM OVERVIEW

The Intelliflex™ OctoPod solution is a modular, start-to-finish line of products purpose built for today's high performance data centers.

The OctoPod is a fully integrated modular system for the ever-evolving data center industry. Designed and built in our state-of-the-art North American manufacturing facilities, our team boasts over a century of combined experience in multidisciplinary engineering and craftsmanship. This modular solution meets expectations with unmatched density, scalability, and customizable options tailored to your specific needs and preferences.

This comprehensive solution, with its versatile cooling system, supports all current computing hardware and anticipates future upgrades. This forward-thinking design ensures compatibility and readiness for the latest technologies, providing seamless integration and optimal performance as new hardware becomes available on the market.

Elevate your operations today and stay ahead of tomorrow's challenges. Let's take a deep dive into the technical data and options that OctoPod has to offer.

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MODULE DESCRIPTIONS

HIGH LEVEL SPECIFICATIONS

STANDARD MODULES

	Block Capacity	*OctoPod Capacity*	*Details/Options*
COMPUTE modules house all of your server and network racks/immersion tanks and associated smart PDUs. It includes all of your power distribution bus system and liquid cooling pipe rack assemblies.	• Computing load: up to 7.5MW • Compute racks: 80 units • Up to 4,160U rack space	• Computing load: up to 30MW • Compute racks: 640 units • Up to 33,280U rack space	• Cooling options: • Liquid immersion • Direct to chip • Air cooling
COOLING modules include chiller units paired with roof-mounted dry coolers, equipped with variable speed control for optimal efficiency. Three chiller systems, and associated dry coolers and piping allows for N+1 redundancy.	• Cooling capacity: up to 7.5MW • Ambient temp: up to 122F • Chillers: 12 x 750KW / 250Ton	• Cooling capacity: up to 30MW • Ambient temp: up to 122F • Chillers: 48 x 750KW / 250Ton	• Economizer • Heat recovery • Automated controls
MEGABOX modules are unit substations that handle medium voltage, power transformation, metering, and protection downstream from the switchgear building.	• Power capacity: up to 18MW • Unit capacity: 6 x 3MW • Primary voltage: up to 69KV • Secondary voltage: 415V	• Power capacity: up to 72MW • Unit capacity: 24 x 3MW • Primary voltage: up to 69KV • Secondary voltage: 415V	• Power monitoring • Shunt trip • Dry type cast resin Split Core • Secondary Protection
SWITCHGEAR modules include incoming power utility cabinet, and all associated feeder breakers, and protections for the downstream medium voltage site power infrastructure requirement.	• Power capacity: up to 18MW • Voltage range: up to 69KV	• Power capacity: 72MW • Voltage range: up to 69KV	• Up to 3 power sources • Optional transfer switch • Optional SCADA

OPTION SELECTION

CONTROL ROOM modules are tailored to your specifications, to house operator stations, central servers, networking hubs, workshops, restrooms, etc. offering a fully customizable solution to meet your needs.	• Footprint: 720 sqft	• Footprint: 720 sqft	• Main operator control station • Central servers and network racks • Customizable work space • Restroom / change room

	Recommended Specifications		
DRUPS Diesel Rotary UPS. Combines an uninterruptible power supply with a diesel generator into a single integrated system. By using kinetic energy stored in a flywheel, the DRUPS provides immediate power during an outage while the generator starts, delivering a seamless, fuel-efficient, and highly reliable backup solution.	• Rated power capacity 14.4MW • 6 to make 5 configuration • MV 12.47 KV output • +/- 1% voltage regulation • +/- 1 Hz dynamic conditions	• Rated power capacity 57.6MW • 6 to make 5 configuration x 4 • MV 12.47 KV output • +/- 1% voltage regulation • +/- 1 Hz dynamic conditions	• Fuel: diesel • Standard operation 65dba • 24h run time • UL142 dual wall fuel tank • 10 year bearing life
BATTERY & UPS our UPS and battery solutions are designed with flexibility in mind, allowing them to be tailored to any specific requirement. Fully compatible with a wide range of energy storage technologies available on the market today, ensuring seamless integration, reliable operation, and long-term performance.	• Battery capacity: 2.5MWh • Power capacity: 15MW • 12 Independent UPS systems • 12 x 2500Amp busway	• Battery capacity: 10MWh • Power capacity: 60MW • 48 Independent UPS systems • 48 x 2500Amp busway	• 10 min. runtime @ 100% capacity • Lithium ion batteries • Up to 99% efficiency • <3% harmonic distortion
STANDBY GENERATION our standby power solutions can be designed and adapted to integrate with the power generation solution of your choice, including diesel or gas generators and turbines. This ensures reliable backup capacity and uninterrupted operation for mission-critical facilities.	• Power capacity: up to 18MW • Unit capacity: 6 x 3MW • Voltage: 415V	• Power capacity: up to 72MW • Unit capacity: 24 x 3MW • Voltage: 415V	• Fuel: diesel • Level 3 sound enclosure 84dba • 24h run time • UL142 dual wall fuel tank

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NETWORKING CABLE TRAY

Multi-layer overhead cable management system engineered for efficient connectivity and expanded routing capacity.

BUSWAY SYSTEM

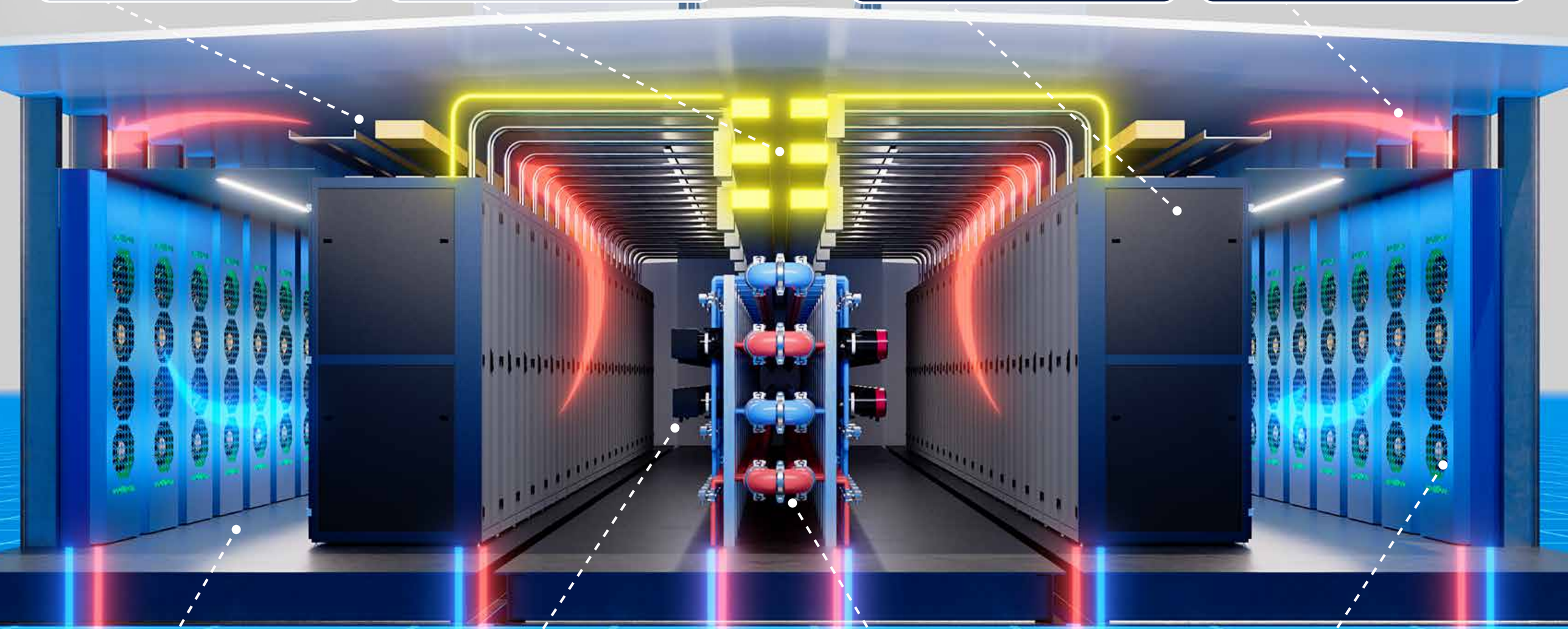
Modular power delivery designed for flexibility, scalability, and uptime — with an N+1 architecture that minimizes fault risk.

DLC RACK

High-performance liquid-cooled rack designed for modern AI and HPC systems — built with a forward-thinking architecture ready for NVIDIA's next-generation 800V DC hardware.

AIR PLENUM

High-efficiency air plenum designed to separate thermal zones and manage hot air return to the CRAH units.



COLD AISLE

A contained cooling zone that channels conditioned air directly to active equipment for peak performance and efficiency.

ICDU

The Intelliflex Coolant Distribution Unit is a concurrently maintainable smart liquid cooling distribution unit balancing flow and temperature across each rack and CRAH.

FACILITY WATER MAIN HEADERS

Centralized 2N cooling backbone supplying chilled water to the entire Octopod system.

CRAH

Advanced air handler that circulates conditioned air through the cold aisle, ensuring consistent cooling and reliable performance.

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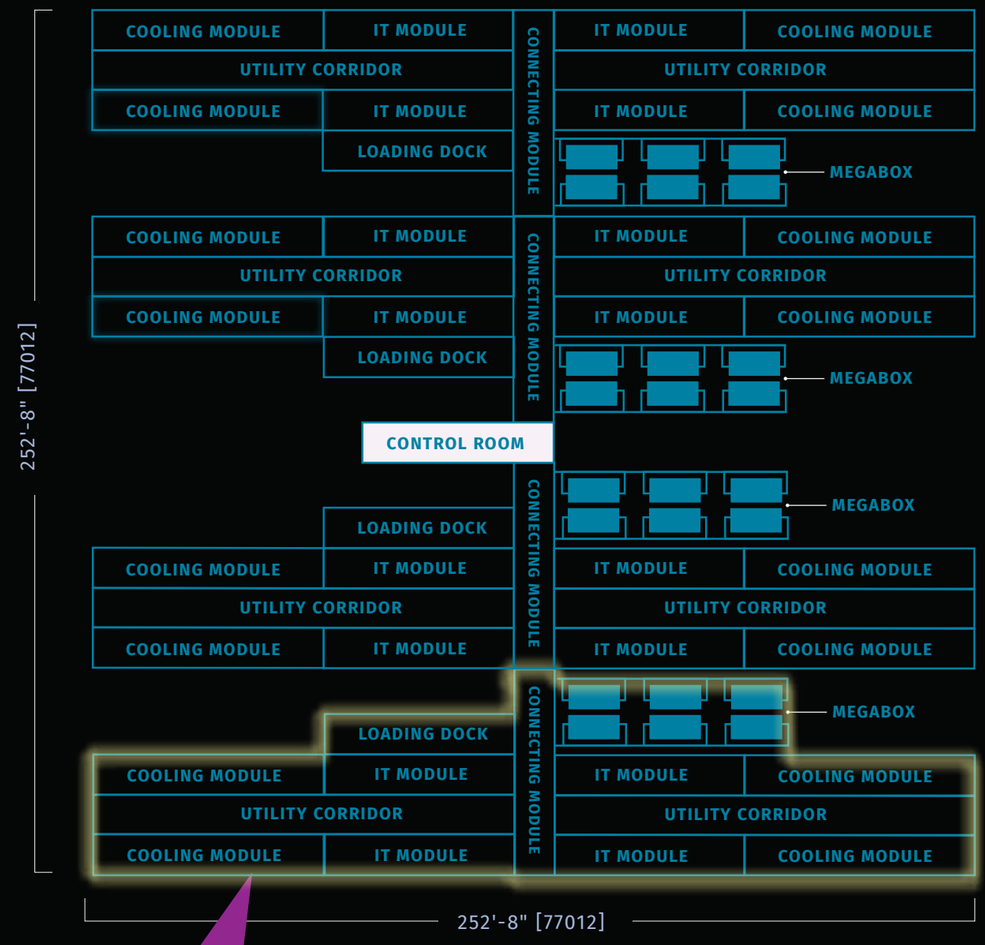

OCTOPOD BLOCK (RATED CAPACITY)

BLOCK	TOTAL	COMPUTE	COOLING	AUXILIARY	PUE RANGE
FULL	11.2MW	7.5MW	3MW	700KW	1.2 – 1.4
HALF	5.6MW	3.75MW	1.5MW	350KW	1.2 – 1.4

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ALBERTA CANADA - 81,650 sqft

TEXAS USA - 171,300 sqft

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WHY US

MULTI-DISCIPLINE ENGINEERING & MANUFACTURING TEAM

Our team includes specialists in Electrical, Network, Automation, Structural, and Mechanical fields. Our team boasts over a century of combined experience, we're able to help realize every aspect of your data center needs.

MANUFACTURING FACILITY

Our state-of-the-art manufacturing facility is equipped with the latest technology. We focus on precision and efficiency, ensuring top-quality production that meets the highest industry standards. Our 250.000 sq ft+ manufacturing facilities are capable of handling fast paced, large scale deployments. This ensures we can meet your demands quickly and efficiently.

COST- EFFECTIVE SOLUTIONS

Having our engineering and manufacturing teams under the same roof streamlines the process from design to reality. The OctoPod's modular design speeds up site deployment while making the most of your available real estate. These factors combined make for the most cost-efficient solution on the market.

START-TO-FINISH APPROACH

We provide a seamless service from design and manufacturing to deployment and site infrastructure. Our team ensures smooth startup, commissioning, ongoing site operations, and preventative maintenance services.

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