

intelliflex 
Innovative Data Solutions

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IMDC 



IMMERSION 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

The IMDC 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 the IMDC was designed, making for ease of operation & maintenance, allowing for maximum uptime.



Efficiency

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



Flexibility

Experience limitless possibilities with the IMDC's innovative modular design. Our liquid Immersion 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 IMDC 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™ IMDC solution is a modular, start-to-finish line of liquid immersion products purpose built for today's high performance data centers.

The IMDC is a fully integrated modular system for the ever-evolving blockchain industry. Designed and built at our state-of-the-art North American manufacturing facility, 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 mining 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 the IMDC has to offer.



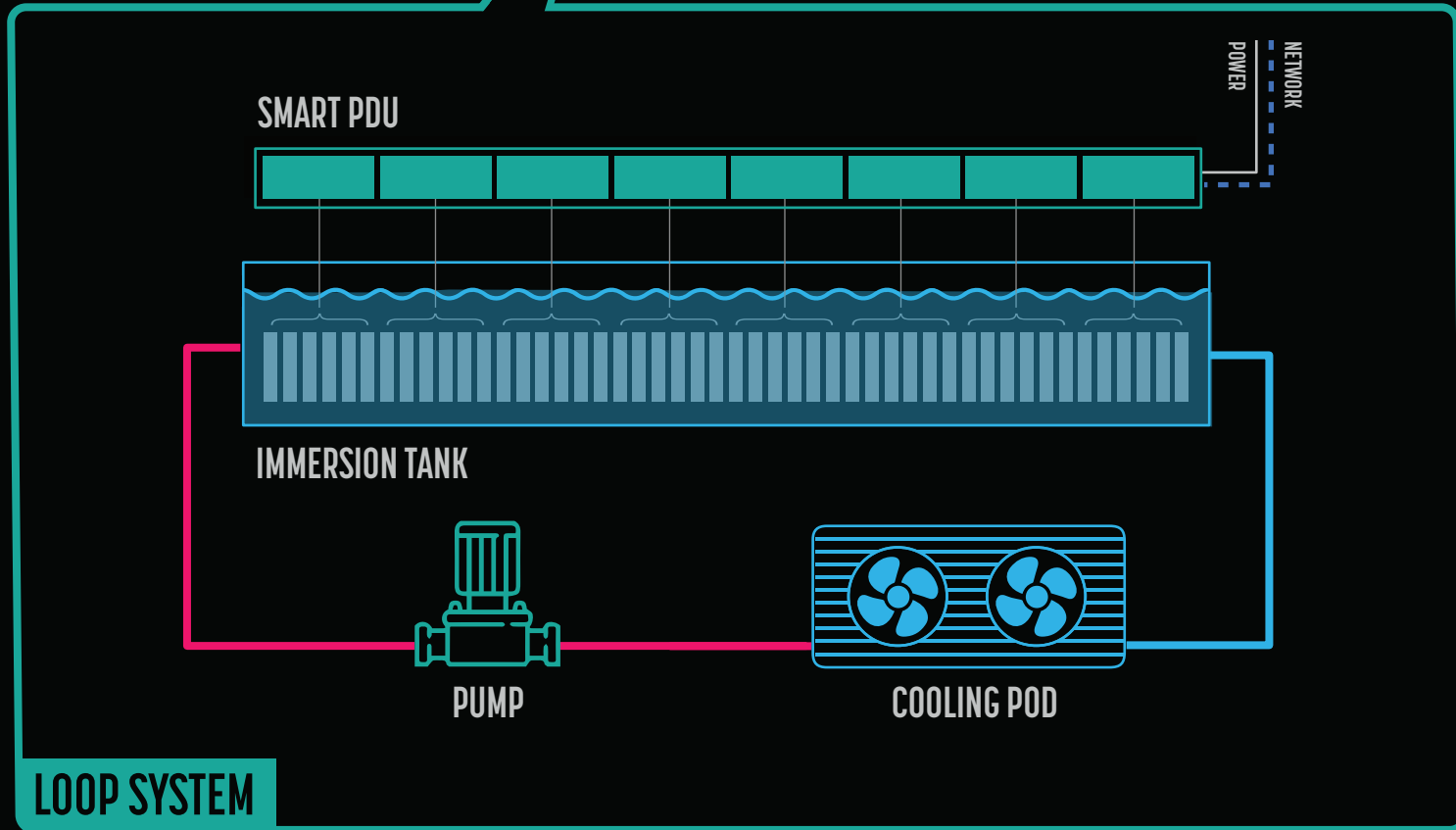
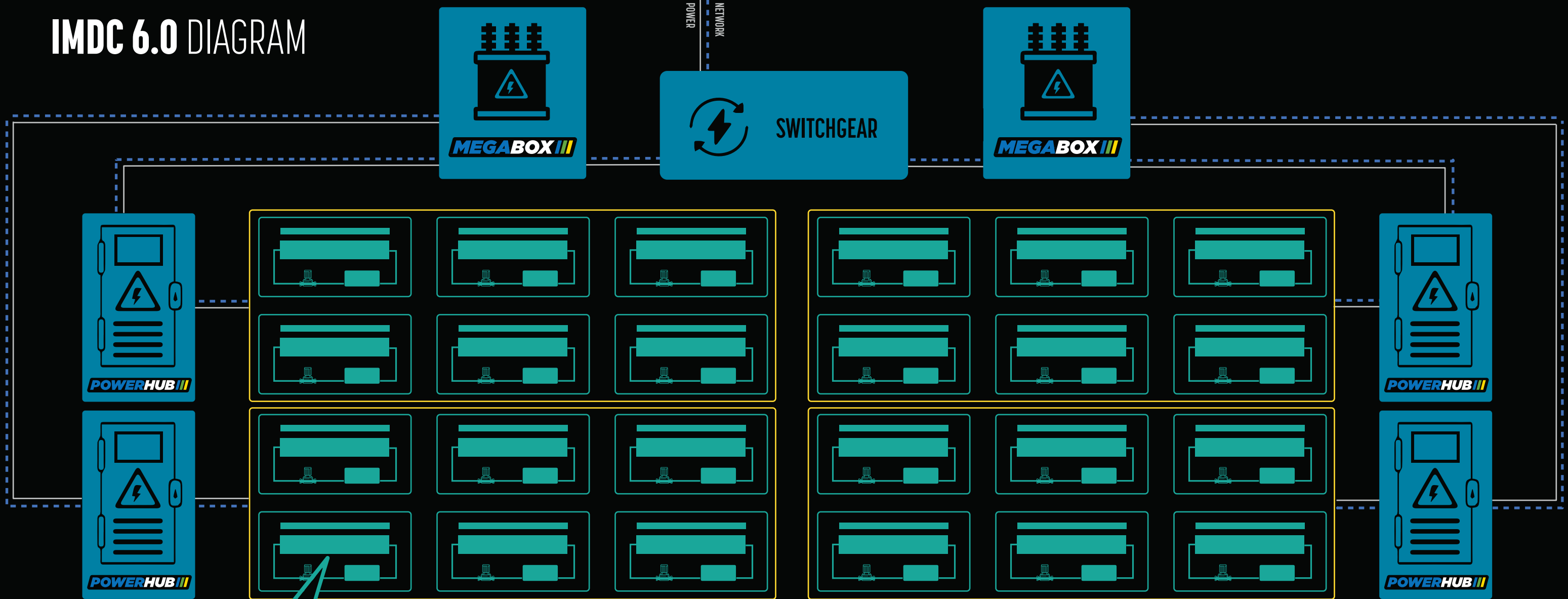
SYSTEM COMPONENTS

HIGH LEVEL SPECIFICATIONS

	Component Capacity	IMDC 6.0 Capacity	Details/Options
 <p>MEGABOX Our substation handles medium voltage, power transformation, metering, and protection downstream from the switchgear building.</p>	<ul style="list-style-type: none"> • 3MW 100% rated at 50° C (122° f) ambient • 2 x 2200A protection 	<ul style="list-style-type: none"> • 2 x 3MW 100% rated at 50° C (122° f) ambient • 2 x 2200A protection 	<ul style="list-style-type: none"> • Cast resin split core power metering up to 69KV primary 415V secondary
 <p>POWERHUB Our power distribution system, purpose-built for our Smart PDU, process cooling, network, and automation equipment ensuring all components work together seamlessly and allows for the 6MW capacity of the IMDC 6.0.</p>	<ul style="list-style-type: none"> • 1.5MW @ 2200A • 6 X 400A SPDU protection • 6 X 20HP pump protection • 12 X 10HP fan protection 	<ul style="list-style-type: none"> • 6MW @ 9600A • 24 X 400A SPDU protection • 24 X 20HP pump protection • 48 X 10HP fan protection 	<ul style="list-style-type: none"> • 11" HMI screen • Utility receptacle
 <p>SMART PDU Our Smart PDU is North American made, built with unmatched density and to the highest industrial standards. Its flexible design allows it to run all mining hardware available on the market today.</p>	<ul style="list-style-type: none"> • 400A 3 phase 415V • 48 x 30A circuit breaker • 16 x L26-30 twist lock receptacle 	<ul style="list-style-type: none"> • 24 x 400A 3 phase 415V • 1152 x 30A circuit breaker • 384 x L26-30 twist lock receptacle 	<ul style="list-style-type: none"> • Siemens PLC • Single and 3 phase capability • On/off receptacle • Power monitoring • North American made
 <p>IMMERSION TANK Our proprietary FlexFlow distribution system is backed by thousands of hours of R+D ensuring even flow throughout, the FlexFlow is designed to suit all mining hardware available on the market today.</p>	<ul style="list-style-type: none"> • Up to 48 Miners • 1200L of Shell fluid 	<ul style="list-style-type: none"> • Up to 1152 Miners • 28,800L of Shell fluid 	<ul style="list-style-type: none"> • FlexFlow distribution • System 20HP Grundfos • Pump smart lighting system • Cable management system
 <p>COOLING POD Each North American-made cooling pod has 6 individual single-loop coils each with 2 redundant fans to maximize your uptime. No site water is required.</p>	<ul style="list-style-type: none"> • 6 x 230.5KW loop • 1.383MW of cooling • 12 x 10HP cooling fans 	<ul style="list-style-type: none"> • 24 x 230.5KW loop • 5.532MW of cooling • 48 x 10HP cooling fans 	<ul style="list-style-type: none"> • 24 redundant cooling loops • Dual fan on each loop • North American made
 <p>AUTOMATION SYSTEM Our system connects every motor to Variable Frequency Drives (VFDs), which adjust based on temperature sensors. This setup allows for precise control, considering both the ambient and process temperatures, to ensure maximum energy efficiency.</p>	<ul style="list-style-type: none"> • Dedicated PLC per loop • Inlet temp sensor • Outlet temp sensor • VFDs on all motors 	<ul style="list-style-type: none"> • 24 x dedicated PLC • 24 x inlet temp sensor • 24 x outlet temp sensor • 72 VFDs 	<ul style="list-style-type: none"> • Modbus communication • PID loop control • Web-based & touch HMI • Web API access
 <p>NETWORK SYSTEM Our network system includes tank level access switches for all your mining hardware, which are connected to redundant layer 3 core switches and associated process control servers ensuring reliable and secure networking capabilities.</p>	<ul style="list-style-type: none"> • 4U network cabinet • 6 x 48 port access-level switches • 1 x layer 3 core switch • 1 x process control server 	<ul style="list-style-type: none"> • 4 x 4U network cabinet • 24 x 48 port access-level switches • 4 x layer 3 core switches • 2 x process control servers 	<ul style="list-style-type: none"> • Redundancy throughout • Integrated process control firewall • Multiple site uplinks • Ethernet or fiber uplinks
 <p>SWG Our Medium Voltage Switchgear module integrates seamlessly to the overall Intelliflex IMDC solution, and provides single point connection from utility, in turn feeding up to 8 IMDC 6.0 modules. This solution will save you time and money.</p>	<ul style="list-style-type: none"> • Up to 48MW capacity • Up to 69KV rating • Up to 18 feeder breaker section 	<ul style="list-style-type: none"> • Power metering • Protection relays • Utility cabinet • LV auxiliary power distribution • UPS and battery backup 	



IMDC 6.0 DIAGRAM



SYSTEM OVERVIEW

The diagram above provides a comprehensive overview of the key components within the IMDC 6.0. This simplistic view illustrates a clear visual of the overall system flow and highlights its built in redundancies.

384 MW SITE LAYOUT



ENERGY UTILIZATION



489' [149]

576' [175.5]

The illustrated numbers below are based on PID loop settings and ambient temperatures.

IMDC 6.0					
AMBIANT	COMPUTE	COOLING	AUXILARY	TOTAL	PUE
SUBZERO	5.532 MW	0.168 MW	0.000 MW	5.700 MW	1.03
MODERATE	5.532 MW	0.212 MW	0.032 MW	5.776 MW	1.04
HIGH TEMP	5.532 MW	0.456 MW	0.064 MW	6.052 MW	1.09

* Note that the numbers above are estimated averaged values.

MODULE TYPES

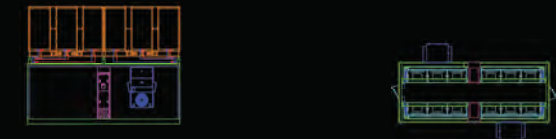
IMDC 6.0

This is our flagship module, it is a 6MW fully integrated immersion data center. Based on our 12'x60' platform it offers unmatched density and reliability.



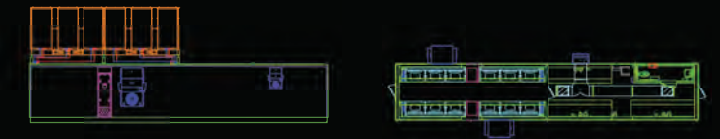
IMDC 3.0

This is a scaled down version of the IMDC 6.0 offering 3MW of capacity on a platform of 12'x30'. This module allows you the flexibility to maximize your site power utilization or a pilot project application.



IMDC 3.0 HYBRID

Introducing our versatile module, featuring the IMDC 3.0 design on a spacious 12'x60' platform. Enjoy 30 feet of customizable space for a control room, repair center, washroom, and more. Tailor it to your specific site needs. Ideal for small sites or as the initial module in a phased, scalable project.



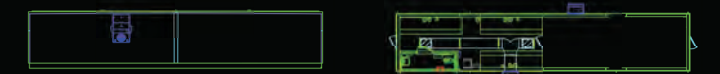
SWITCHGEAR MODULE

The switchgear module is designed and built in-house on our 12'x60' platform, with our "start to finish" approach in mind. It allows you to connect 48MW of utility power feeding up to 8 IMDC 6.0, this is suited for large-scale deployments.



CONNECTING MODULE

The connecting module is based on multiple platforms, with options of 12'x12', 12'x24', 12'x36', 12'x48', and 12'x60'. These customizable spaces can be used for a control room, repair center, washroom, and more. Tailor it to your specific site needs. Ideal for large-scale deployments.







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 72,000 soon to be 126,000 sq ft manufacturing facility is 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 IMDC'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 service.



