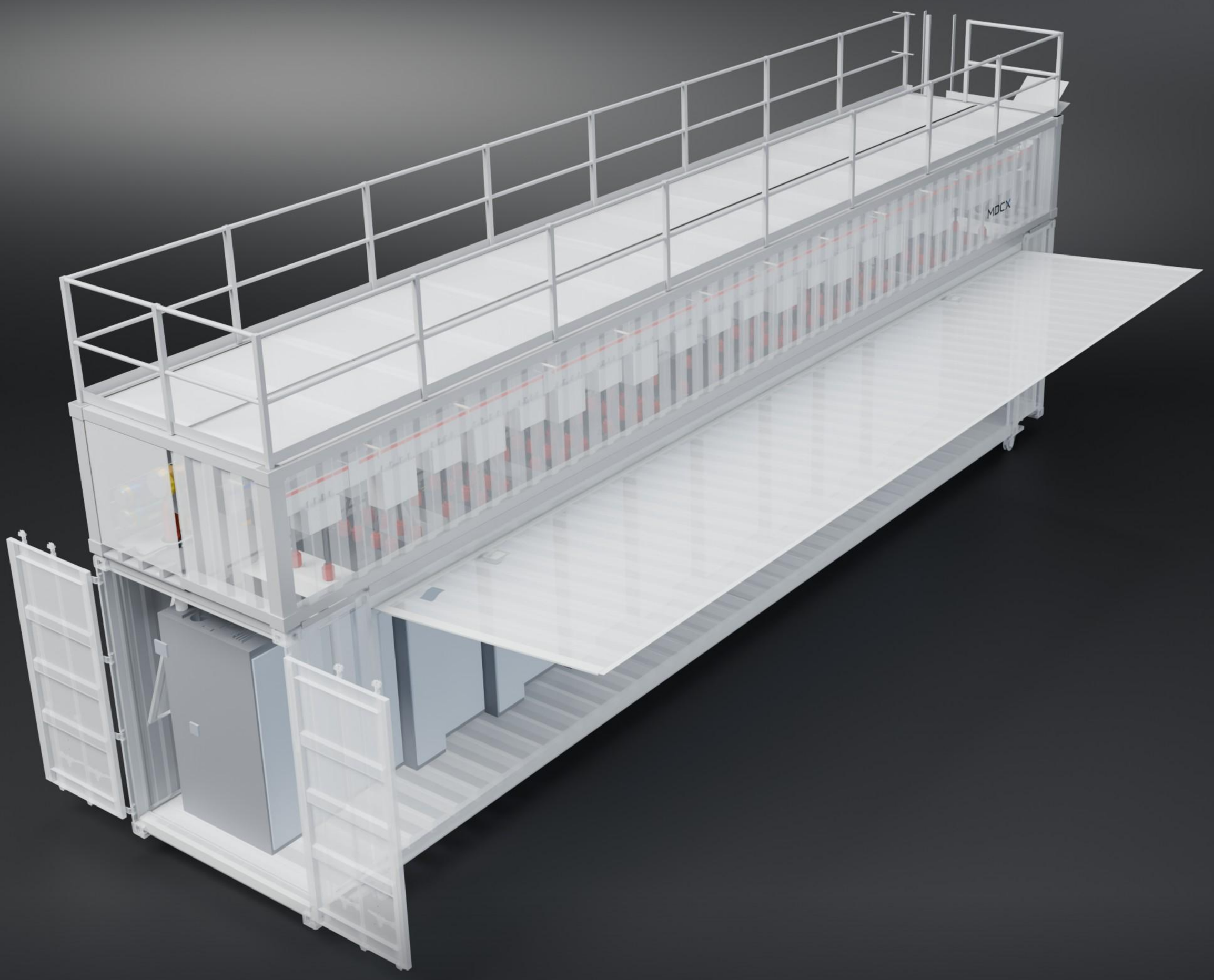
PAN'S POWER



MODULAR AI DATA CENTERS

Modular AI Data Center Infrastructure

Factory-built compute, power and cooling blocks, delivered by PansPower and run on CIOS.

0.4 – 200 MW
Site scale

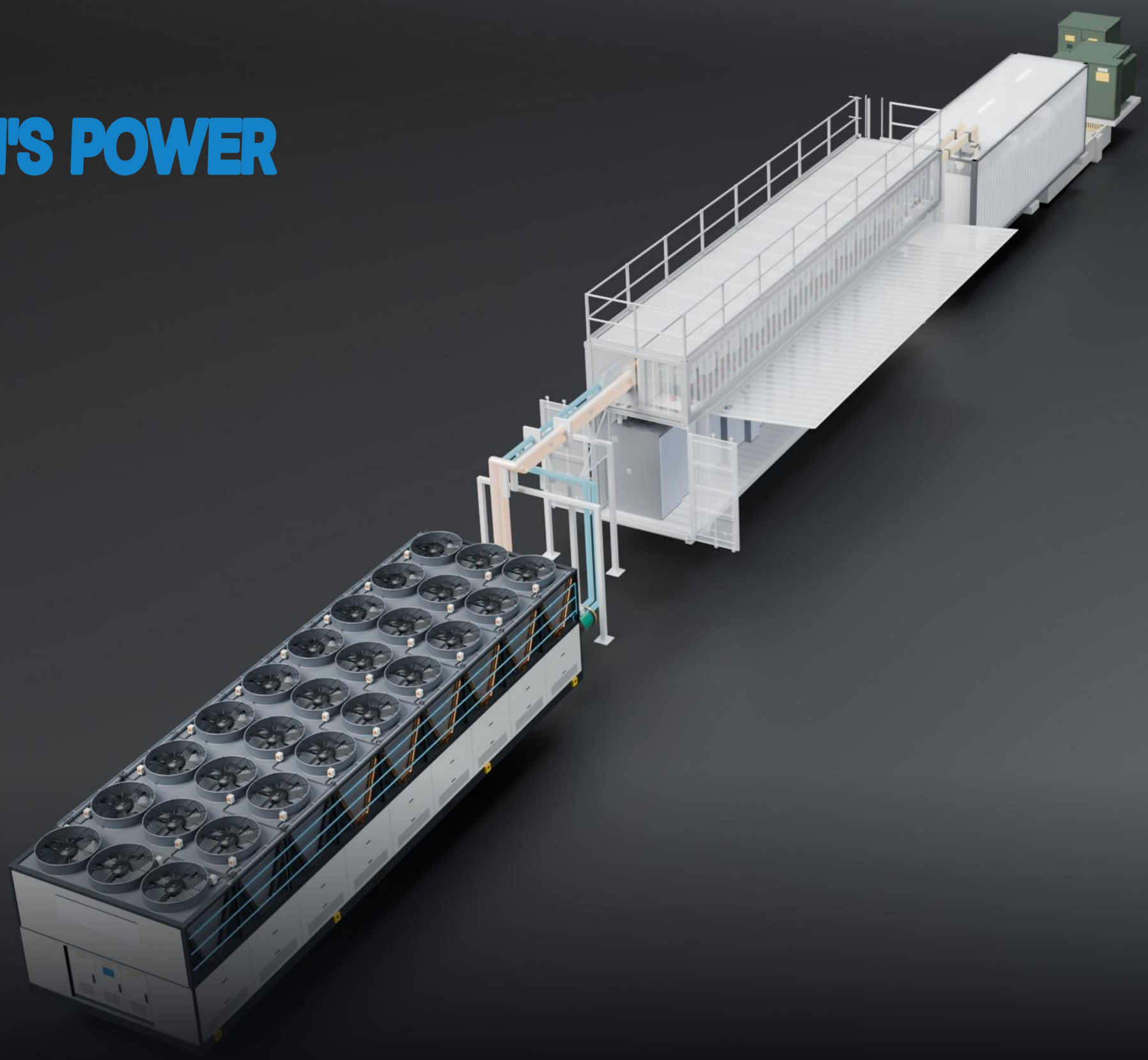
120 / 90 days
Ex-works: first block / each block after

220 kW
Per rack (TDP), L1800C45

UL / CE components • NVIDIA RVL suppliers • CIOS on every block

panspower.com

PAN'S POWER



Infrastructure is no longer a cost — it’s a Service.

PansPower designs and builds modular AI data centers. Every block is a standard product, built and tested in our factory, and ships with our operating software, CIOS. Customers add capacity block by block instead of building a new data hall.

01

Rapid deployment

Factory-built blocks with standard power, water and data interfaces.

02

Rapid delivery

Standard SKUs and fixed configurations, repeated at every site.

03

Remote operations

CIOS monitors every point, turns alarms into tickets and meters usage.

04

Token aggregation

DCM will meter and trade compute capacity. Roadmap.

WHY MODULAR

We build data centers where hyperscalers won’ t.

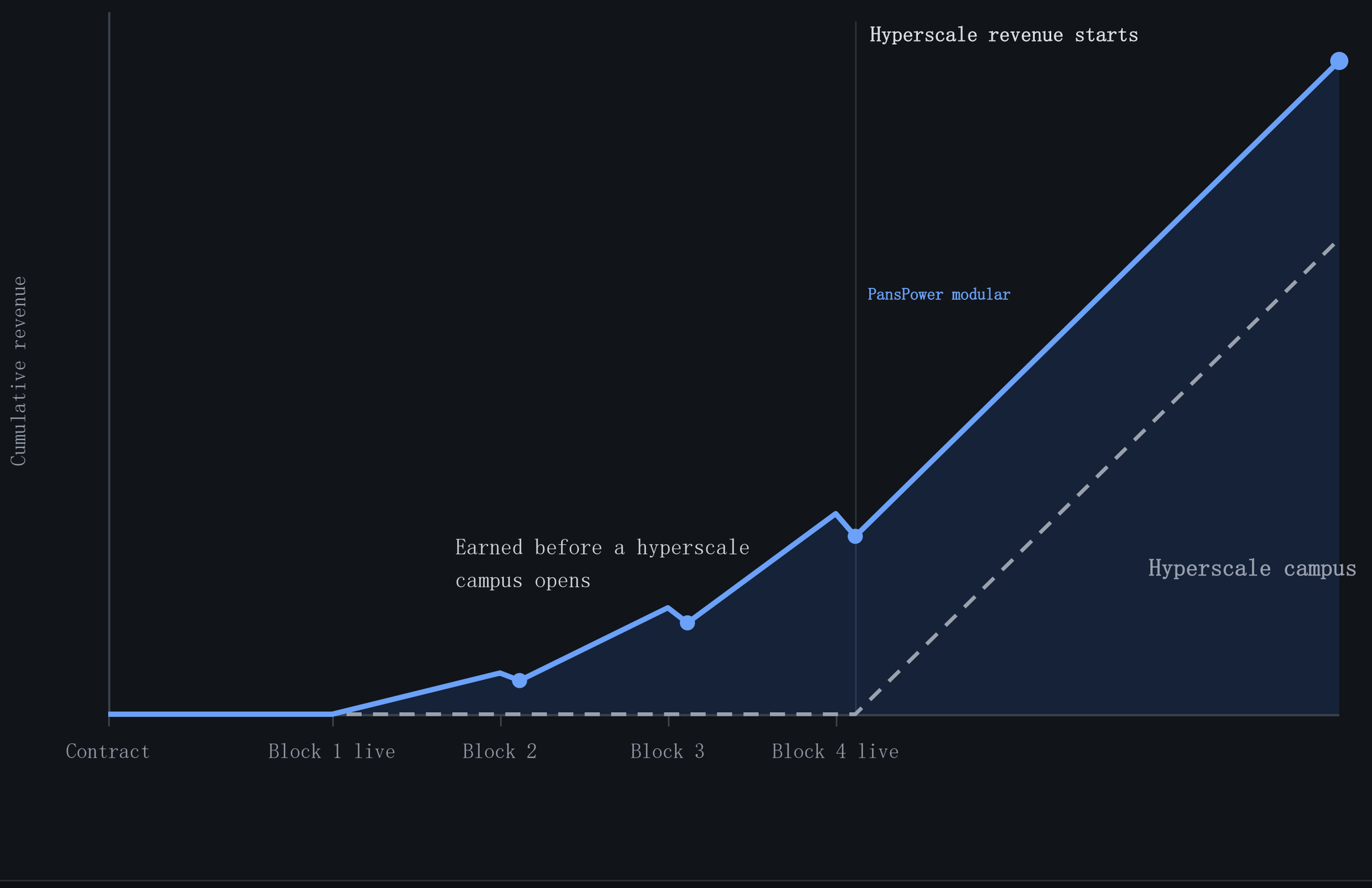
	PansPower modular	CONVENTIONAL HYPERSCALE
Scale	0.4 – 200 MW per site, built from standard blocks	Single large campus
Build time	120 days ex-works for the first block, 90 days after	18 – 36 months typical*
Capital	Spent block by block as demand grows	Committed up front for the campus
Siting	Next to available power: substations, generation sites, existing buildings	A few grid-rich regions
Revenue	Each block earns from commissioning	After full build-out

CAPEX PROTECTION

Earning from the first block

Capital goes in one block at a time, and each block earns while the next is built. A hyperscale campus holds the full investment until the whole site is finished.

ILLUSTRATIVE, NOT TO SCALE



*Industry context, not an PansPower figure. Ex-works dates count from receipt of down payment. Freight and customs are arranged by the buyer.

PansPower builds where the power is.

MODULAR DATA CENTER

From infrastructure to service

01

Power

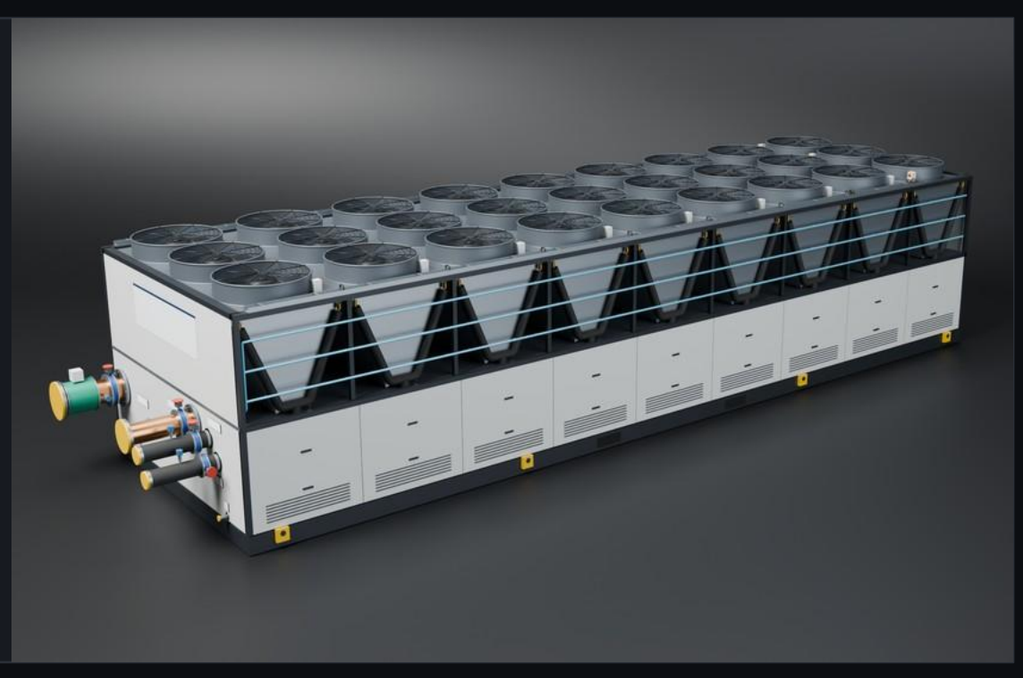
Grid, on-site generation and BESS. PowerPod adds LV switchgear, a modular UPS and battery.



02

Cooling

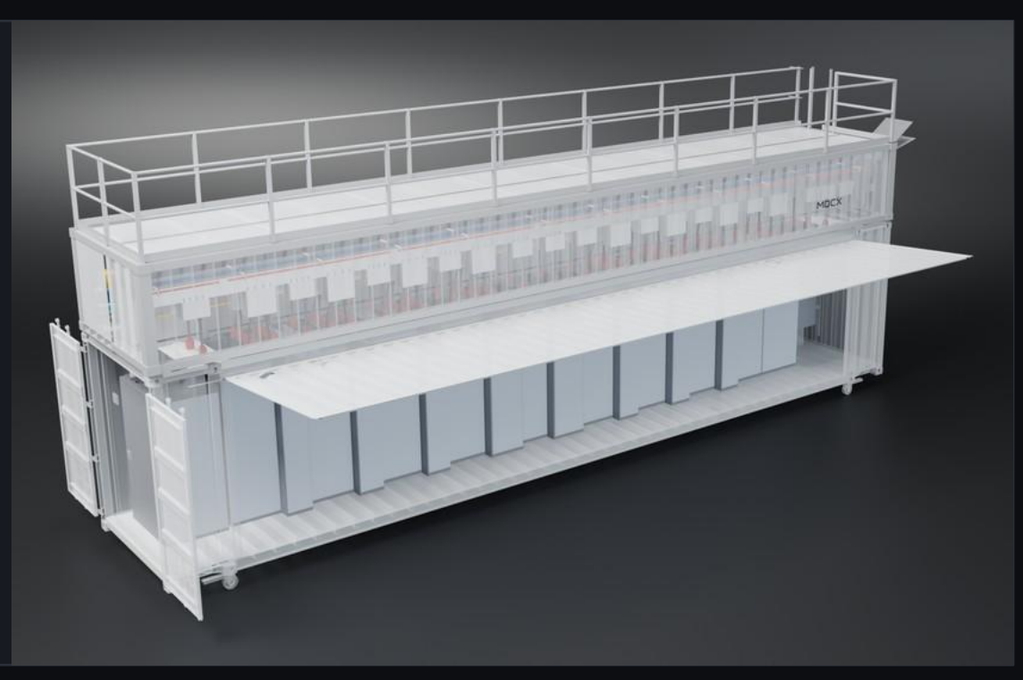
Cold-plate and immersion cooling inside each block. The Hybrid Chiller rejects the heat outdoors.



03

Compute

GB300 NVL72 and B300 HGX today; L1800C45 is ready for Vera Rubin. RTX PRO 6000 Server Edition in immersion.



SERVICE

Revenue-ready compute

Every block is monitored and operated with CIOS from day one.

Standardized

Same blocks and interfaces at every site.

Scalable

Start with one 400 kW block and grow to 200 MW.

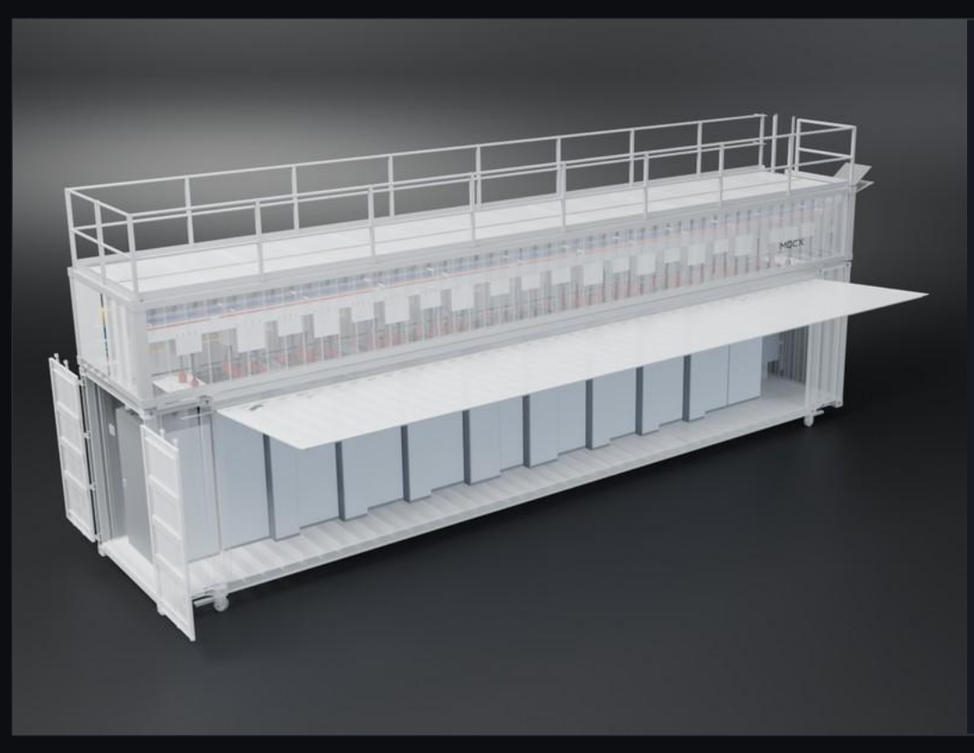
Bankable

Predictable capex per block and a clear asset boundary.

SOLUTION PORTFOLIO

Liquid Cooling series

Three factory-built cold-plate containers for SXM-class GPUs (GB300 NVL72, HGX B300), from 450 to 1,800 kW IT.



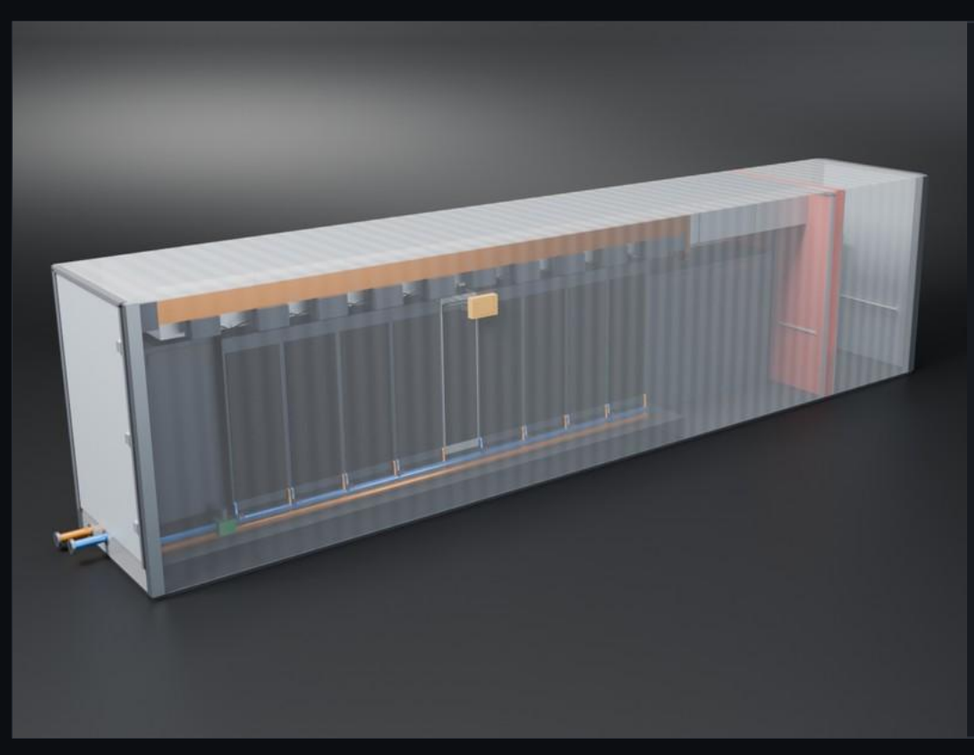
FLAGSHIP

1800 Liquid Cooling Container (L1800C45)

L1800C45DR220

45 ft • up to 220 kW per rack (TDP)

1,800 kW IT, dual loop
UPS outside the container
Up to 576 Vera Rubin

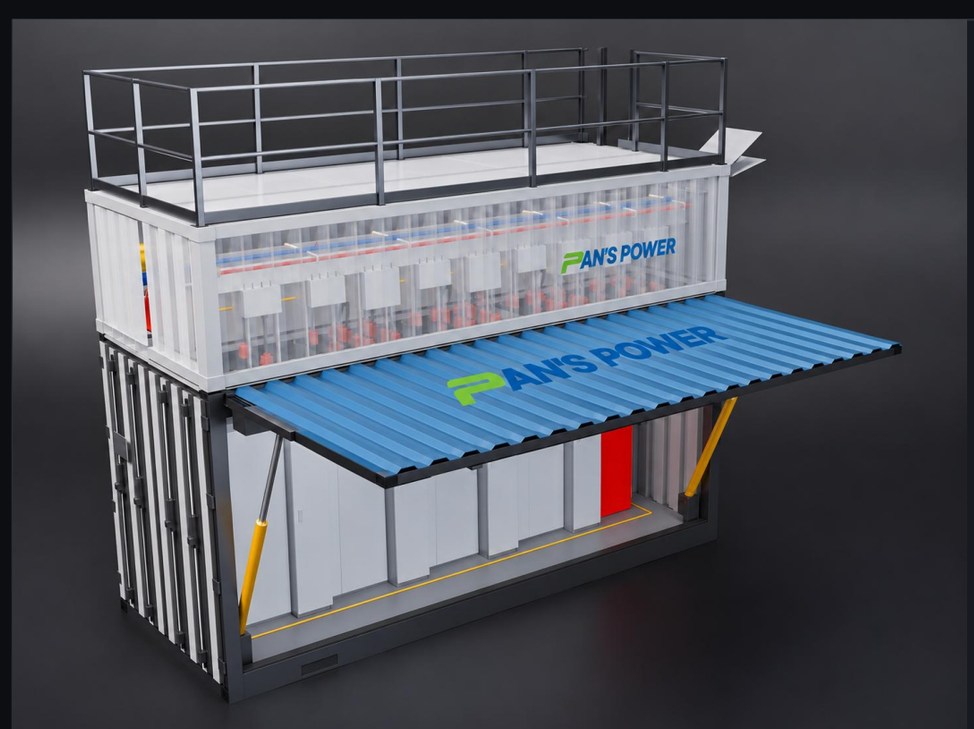


1240 Liquid Cooling Container with UPS (L1240C45)

L1240C45SUR150

45 ft • up to 150 kW per rack

1,240 kW IT, single loop
UPS and battery inside
Up to 576 GB300



450 Liquid Cooling Container (L450C20)

L450C20DR150

20 ft • up to 150 kW per rack

450 kW IT, dual loop
UPS outside the container
Up to 216 GB300

IMMERSION COOLING SERIES • SINGLE-PHASE, PCIE GPUS

I400C45

I400C45SUT50

400 kW • 45 ft
UPS and battery inside

I400C40

I400C40ST50

400 kW • 40 ft
UPS outside

I200C20

I200C20ST50

200 kW • 20 ft
UPS outside

POWER AND COOLING PLANT, CONFIGURED PER SITE • SOFTWARE

PowerPod

LV power, modular UPS, battery

Hybrid Chiller

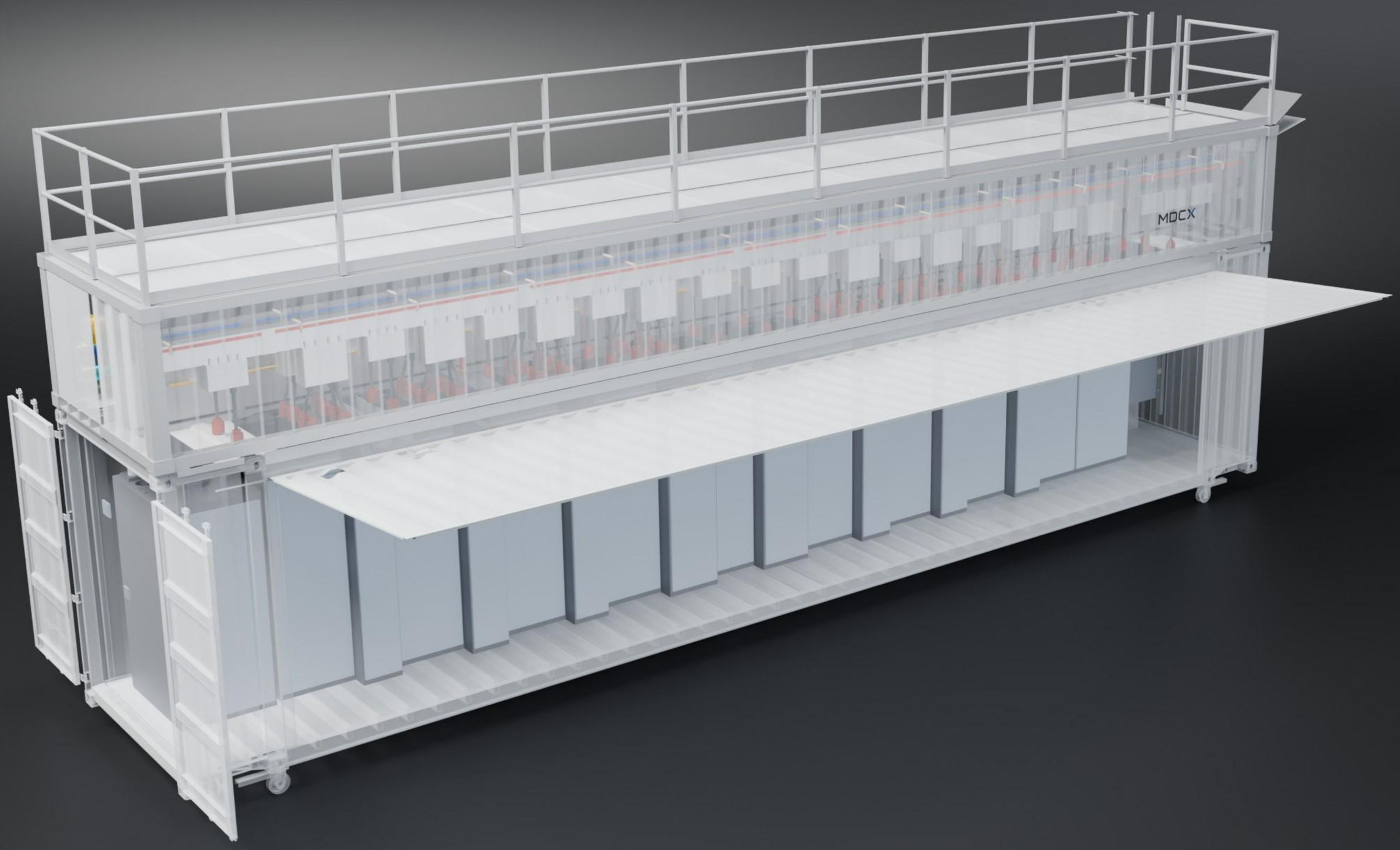
Warm and chilled water, one unit

BESS

Tesla Megapack 3, hours of backup

CIOS

Included with every block



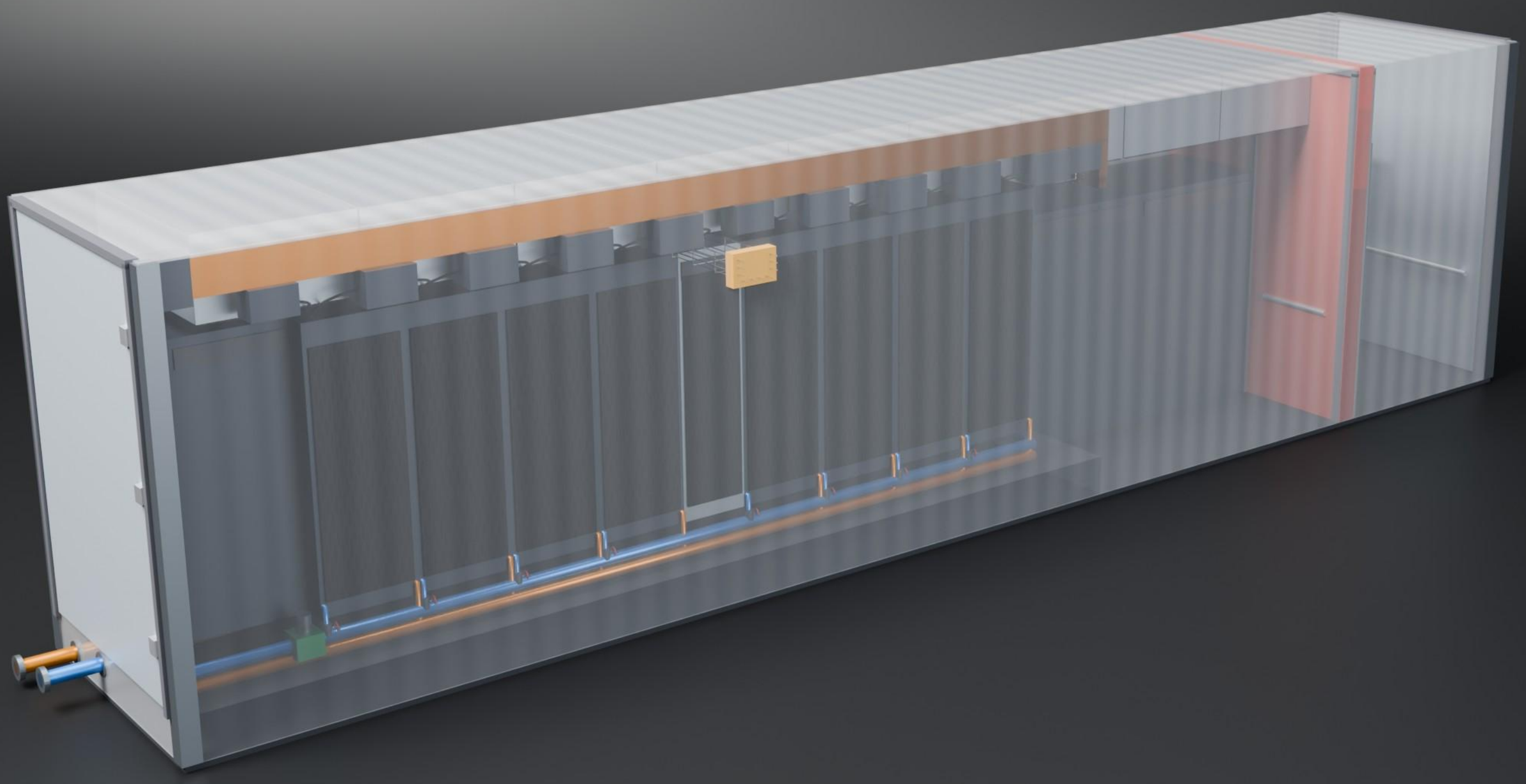
1800 Liquid Cooling Container (L1800C45)

L1800C45DR220 · 45 ft · up to 220 kW per rack (TDP)

Dual-loop container with 1,800 kW IT for SXM-class GPU systems. Built for sites that have the power but not the floor space. UPS and battery sit outside the container.

CAPACITY	
IT capacity	1,800 kW IT load (not total facility load)
Racks	8 × 220 kW liquid-cooled, 1 × 40 kW air-cooled
Rack density	Up to 220 kW per rack (TDP), code R220
GPU platforms	GB300 NVL72, B300 HGX; up to 576 Vera Rubin (8 × NVL72)
COOLING, DUAL LOOP	
Loop A, cold plates	GPU cold-plate inlet 36–40 °C (45 °C max); outdoor-plant supply 32–36 °C
CDU	2 × 1,200 kW, plate heat exchangers, 4 K approach; site water stays out of the cold plates
Loop B, in-row	Chilled water to 8 in-row cooling units, 10/15 °C
Heat rejection	Hybrid Chiller: dry coolers carry the warm-water loop most of the year
PUE	Site-specific; calculate for your climate at panspower.com
POWER	
UPS boundary	Outside the container: PowerPod, or site UPS, battery and PDC
Supply	380 / 400 / 415 / 480 V AC; 800 V HVDC on the Roadmap
STRUCTURE	
Container	45 ft High Cube with gullwing doors
Dimensions	13,716 × 2,438 × 2,992 mm; top module 900 mm (design values)
Connections	Dry-break couplings at every rack, in-row unit and CDU; plug-in busway
OPERATIONS AND DELIVERY	
Monitoring	CIOS included
Certification	Device-level UL / CE in place; system-level UL / CE expected 2027
Availability	Tier II investment, Tier III-class availability
Delivery	First block 120 days ex-works, each block after 90 days
Warranty	Core components, 1 year from EXW; annual service after

Design values. Final configuration and ratings are confirmed at technical clarification. Pricing on request from PansPower sales.



1240 Liquid Cooling Container with UPS (L1240C45)

L1240C45SUR150 · 45 ft · up to 150 kW per rack

Single-loop container with 1,240 kW IT. UPS and battery are built in, for sites without an electrical room.

CAPACITY	
IT capacity	1,240 kW IT load
Racks	8 × 150 kW liquid-cooled, 1 × 40 kW air-cooled
Rack density	Up to 150 kW per rack, code R150
GPU platforms	GB300 NVL72, B300 HGX; up to 576 GB300 (8 × NVL72)

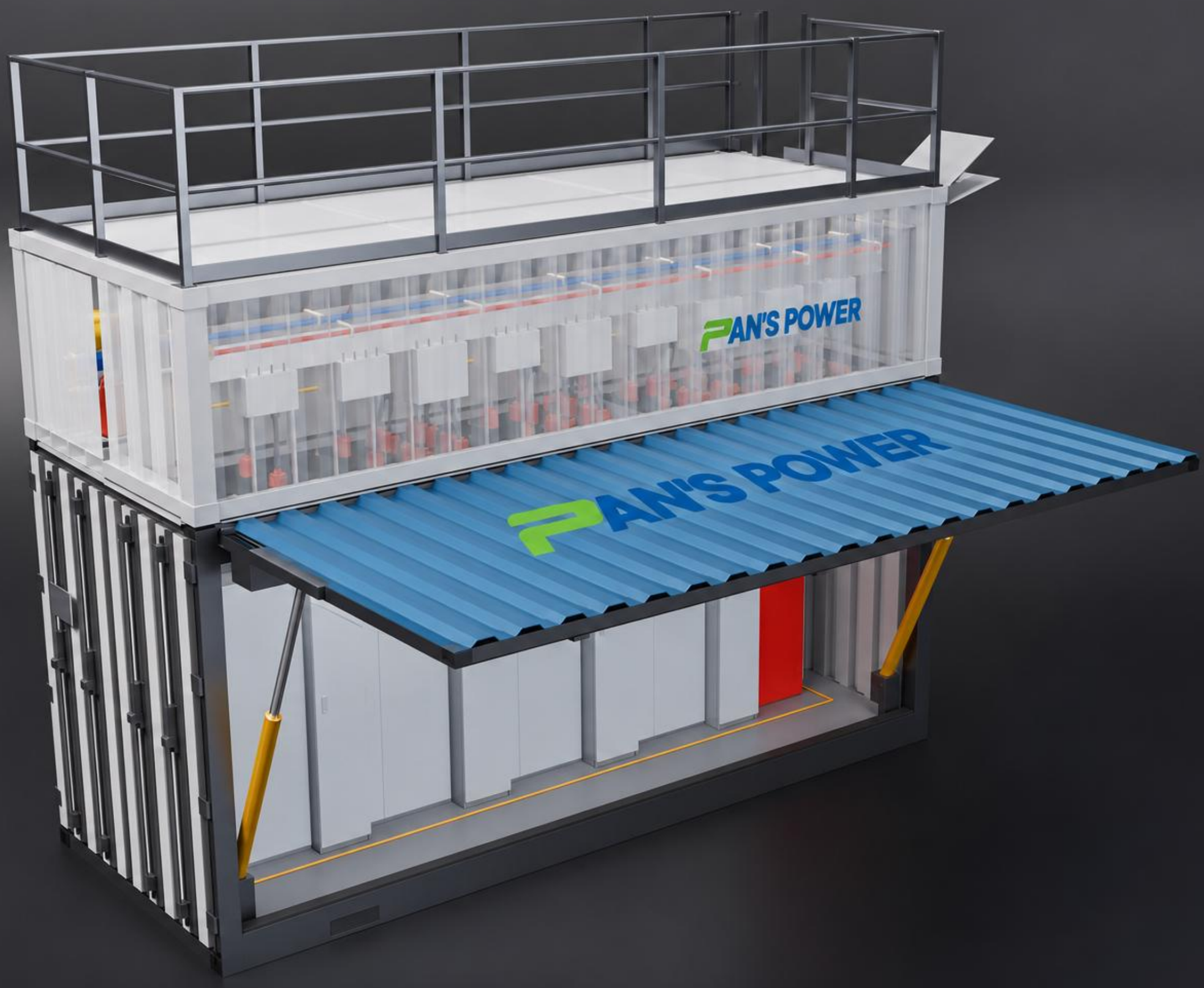
COOLING, SINGLE LOOP	
Architecture	One loop, three parallel branches: cold plates, rear-door heat exchangers, ceiling units
Loop inlet	26–28 °C; rack intake 25–27 °C
CDU	1,500 kW or more, variable speed, 2N or N+1
Heat rejection	1,700 kW or more, hybrid dry cooler with DX assist
PUE	Site-specific; calculate for your climate at panspower.com

POWER, UPS INSIDE	
UPS	1,500 kW modular UPS inside the container
Battery	Lithium-ion, about 8 min
Distribution	2,500 A busway; 60 A / 415 V PDUs with 24 × C19

STRUCTURE AND SAFETY	
Container	45 ft High Cube, 13,716 × 2,438 × 2,992 mm, about 16 t empty
Operating ambient	−45 to +45 °C
Fire and access	Clean-agent suppression, aspirating smoke detection, card or face access

OPERATIONS AND DELIVERY	
Monitoring	CIOS included; Modbus, SNMP, web
Certification	Device-level UL / CE in place; system-level UL / CE expected 2027
Availability	Tier II investment, Tier III-class availability
Delivery	First block 120 days ex-works, each block after 90 days
Warranty	Core components, 1 year from EXW; annual service after

Design values. Final configuration and ratings are confirmed at technical clarification. Pricing on request from PansPower sales.



450 Liquid Cooling Container (L450C20)

L450C20DR150 · 20 ft · up to 150 kW per rack

Dual-loop container with 450 kW IT. Same architecture as L1800C45, for sites where a 45 ft container cannot go.

CAPACITY	
IT capacity	450 kW IT load
Racks	3 × 150 kW liquid-cooled racks, no air-cooled rack
Rack density	Up to 150 kW per rack, code R150
GPU platforms	GB300 NVL72, B300 HGX; up to 216 GB300 (3 × NVL72)

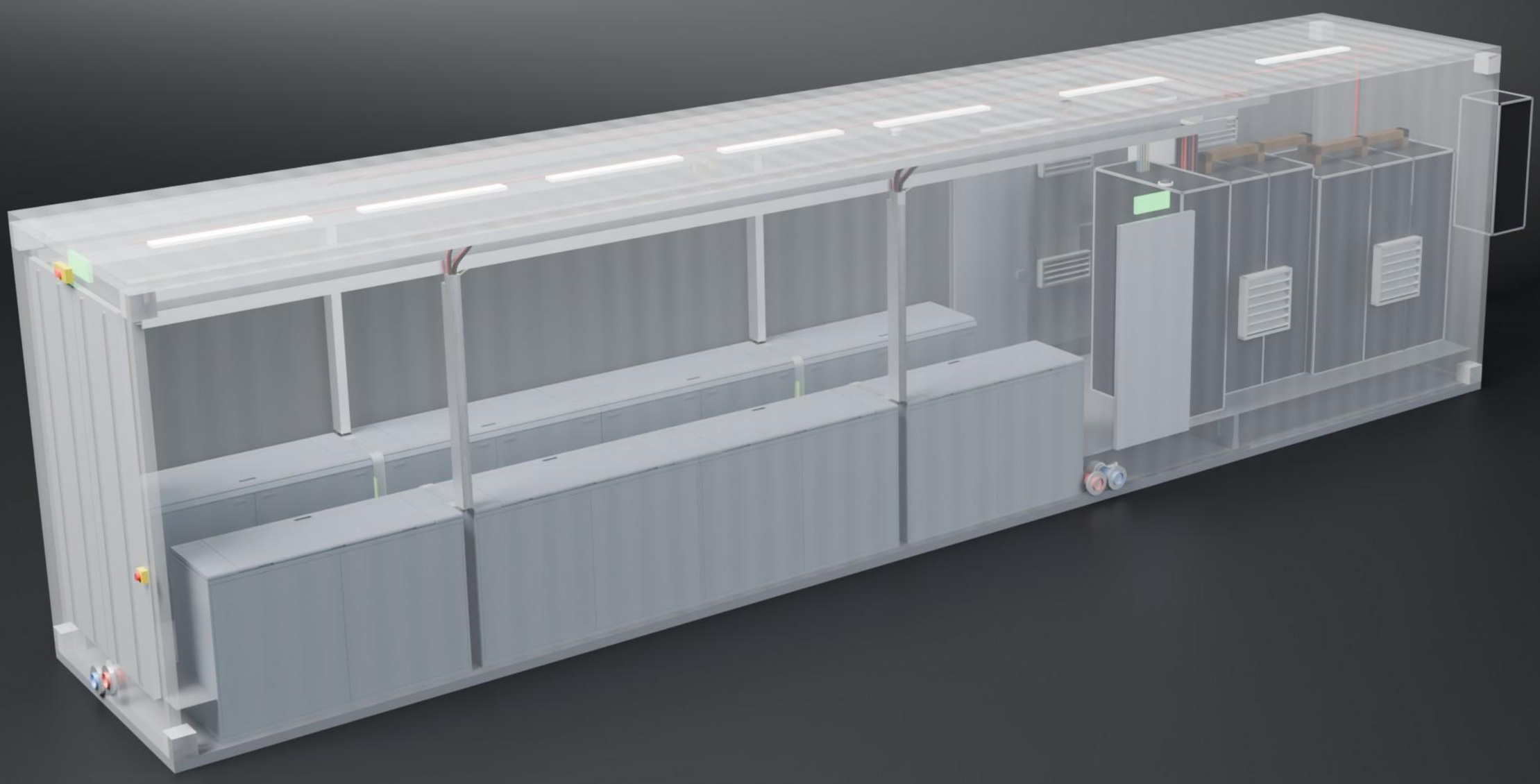
COOLING, DUAL LOOP	
Loop A, cold plates	GPU cold-plate inlet 36–40 °C (45 °C max); outdoor-plant supply 32–36 °C
CDU	1 × CDU, plate heat exchangers, 4 K approach; site water stays out of the cold plates
Loop B, in-row	Chilled water to 4 in-row cooling units, 10/15 °C
Heat rejection	Outdoor heat rejection sized per site
PUE	Site-specific; calculate for your climate at panspower.com

POWER	
UPS boundary	Outside the container: site UPS, battery and PDC
Supply	380 / 400 / 415 / 480 V AC; 800 V HVDC on the Roadmap

STRUCTURE	
Container	20 ft container with gullwing door
Connections	Dry-break couplings at every rack, in-row unit and CDU; plug-in busway

OPERATIONS AND DELIVERY	
Monitoring	CIOS included
Certification	Device-level UL / CE in place; system-level UL / CE expected 2027
Availability	Tier II investment, Tier III-class availability
Delivery	First block 120 days ex-works, each block after 90 days
Warranty	Core components, 1 year from EXW; annual service after

Design values. Final configuration and ratings are confirmed at technical clarification. Pricing on request from PansPower sales.



Immersion Cooling series

I400C45 · I400C40 · I200C20

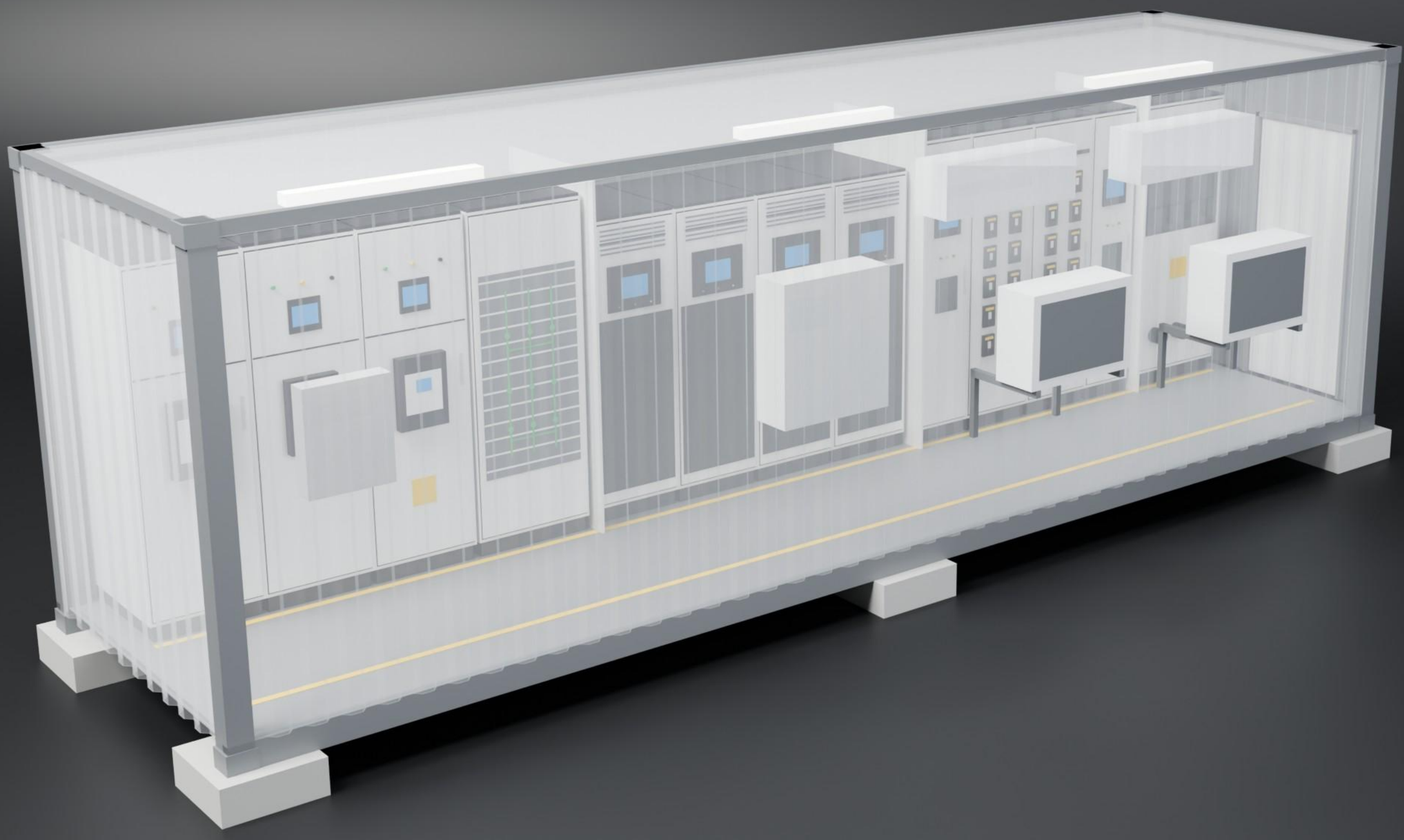
Single-phase immersion cooling for inference. All three containers use the same 50 kW tank. They differ in size and in where the UPS sits.

	I400C45	I400C40	I200C20
Product	400 Immersion Cooling Container with UPS	400 Immersion Cooling Container	200 Immersion Cooling Container
SKU ID	*I400C45SUT50*	*I400C40ST50*	*I200C20ST50*
Container	45 ft: compute bay + power bay	40 ft compute bay	20 ft compute bay
IT capacity	400 kW	360 kW recommended, 400 kW max	200 kW
Tanks	8 × 50 kW	8 × 50 kW	4 × 50 kW
Air-cooled rack	1 × 10 kW	1 × 10 kW	—
Facility water	32 / 37 °C	Per site	Per site
UPS	Inside: 600 kW UPS and battery	Outside (site)	Outside (site)
GPU envelope	Up to 512 RTX PRO 6000 Server Edition	Up to 512 RTX PRO 6000 Server Edition	Up to 256 RTX PRO 6000 Server Edition

COMMON TO THE SERIES

Cooling	Single-phase immersion, 50 kW per tank (T50); two CDUs per tank (2N)
GPU platforms	PCIe GPUs, such as RTX PRO 6000 Server Edition, H100 and H200
PUE	Site-specific; calculate for your climate at panspower.com
Redundancy	2N in each tank; capacity redundancy by adding containers
Operations	CIOS included; Tier II investment, Tier III-class availability
Certification	Device-level UL / CE in place; system-level UL / CE expected 2027
Delivery	First block 120 days ex-works, each block after 90 days
Warranty	Core components, 1 year from EXW; annual service after

Design values. Final configuration and ratings are confirmed at technical clarification. Pricing on request from PansPower sales.



POWER AND COOLING PLANT • DATASHEET

CONFIGURED PER SITE

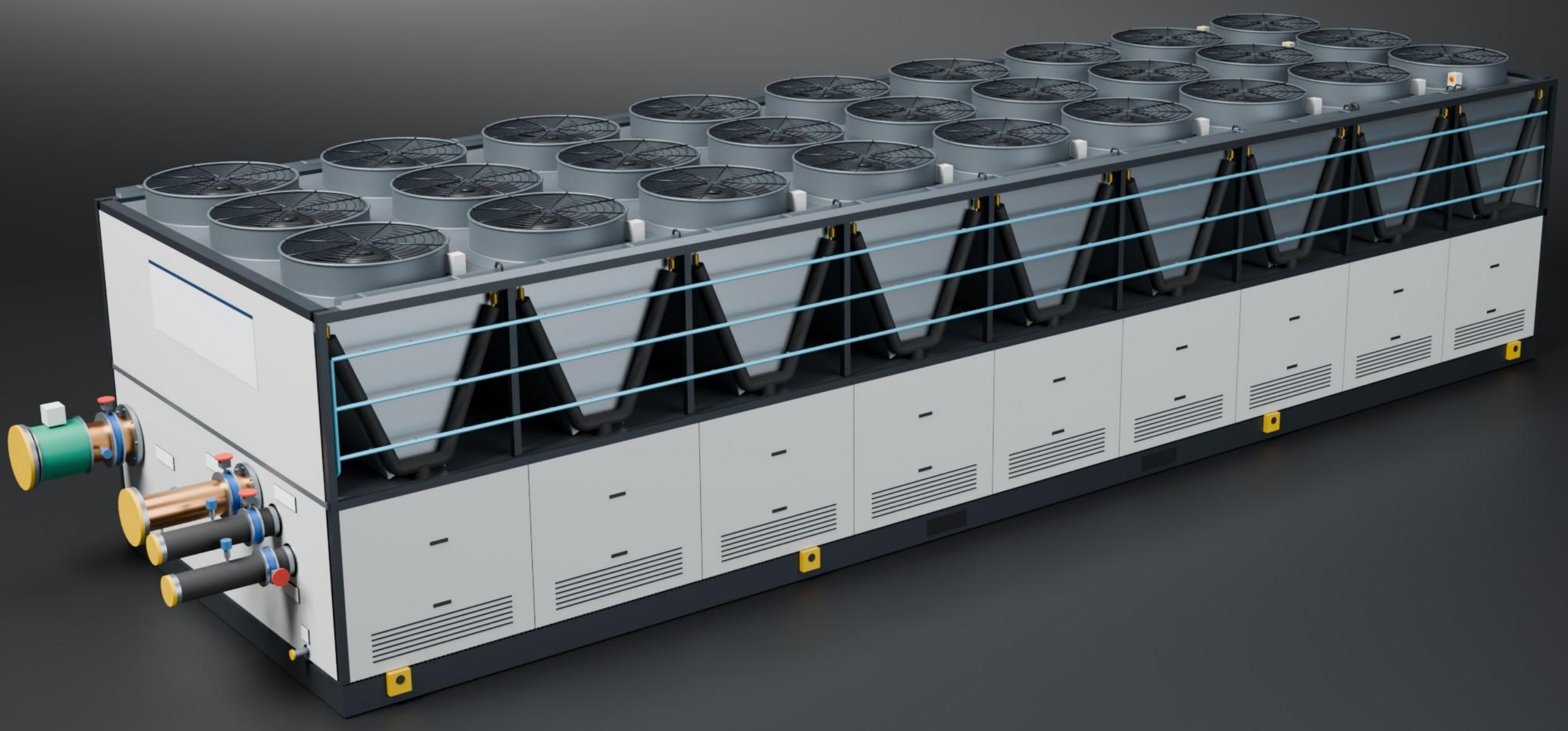
PowerPod

LV power module for L1800C45

PowerPod sits between the site transformer and the compute container. The design is standard; ratings and the market variant are set for each site.

STANDARD ON EVERY UNIT		
Configuration	One pod per container: 30 ft power pod + 20 ft battery container, or one 45 ft unit	
Switchboard	LV incomer, UPS input and bypass, maintenance bypass	
UPS	Modular double-conversion UPS, hot-swap power modules, N+1 at module level	
Battery	Lithium iron phosphate, own HVAC and gas detection, fire-separated from the power room	
Outputs	Two busway connections to the compute container; feeders to the Hybrid Chiller	
HVAC	2 × 100 % (N+1)	
Monitoring	Modbus TCP to CIOS	
SET FOR EACH SITE		
UPS capacity	Load of the paired container and chiller	1.5 MW class per L1800C45
Battery time	Until the genset or BESS takes over	5 min
Supply	Market	400 V 50 Hz, 415 V 60 Hz or 480 V 60 Hz
Enclosure	Site environment	IP55; C4, C5 coastal option
Ambient	Site climate	−30 to +45 ° C; −40 ° C option
Certification	Market	CE, UL, KC or CSA
Not included	Upstream of the pod	MV switchgear, transformer, genset or BESS

Configured per site. Ratings are confirmed with the site data at technical clarification. PowerPod, Hybrid Chiller and BESS are not separate SKUs.



CONFIGURED PER SITE

Hybrid Chiller

Outdoor heat rejection for L1800C45

One outdoor unit takes all the heat from one L1800C45. Most of the year the coils cool the warm-water loop with the compressors off.

STANDARD ON EVERY UNIT

Outputs	Warm water to the CDU, 36 ° C supply; chilled water to the in-row units, 10/15 ° C
Heat rejection	One V-coil section: 9 coil blocks, 27 EC fans, adiabatic spray
Zoned rejection	Standard: in hot hours up to 3 coil blocks serve the compressors alone
Compressors	Inverter-scroll modules, about 150 kW each; 7 module slots
Pumps	Duty and standby on every circuit, variable speed
Power	Pumps and controls on UPS-backed feeds; compressors on the mechanical feed
Controls	PLC; Modbus TCP to CIOS

SET FOR EACH SITE

Compressor modules	IT load and GPU generation	5 standard, up to 7
Coolant	Lowest site temperature	Per project
Ambient	Site climate	-26 to +45 ° C; -43 ° C cold variant
Corrosion	Site environment	C4; C5 option
Noise	Local limits	Low-noise option
Supply	Market	400 V 50 Hz, 380 / 415 V 60 Hz or 480 V 60 Hz
Pairing	Compute container	1 × L1800C45

Configured per site. Ratings are confirmed with the site data at technical clarification. PowerPod, Hybrid Chiller and BESS are not separate SKUs.

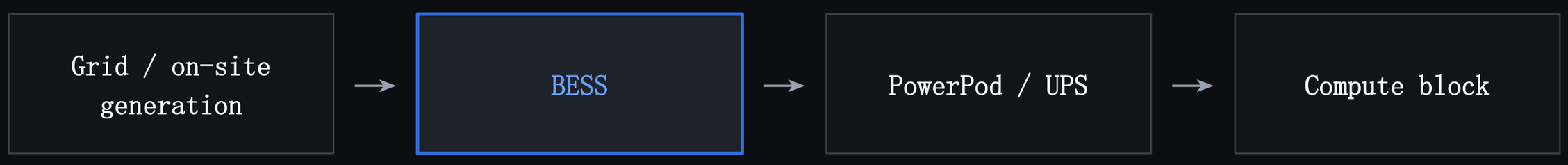


CONFIGURED PER SITE

BESS

Tesla Megapack 3 for hours of backup

The UPS in the PowerPod covers minutes. For outages measured in hours, PansPower pairs the block with Tesla Megapack 3.



	UPS	BESS
Time scale	Minutes	Hours; 120 min standard
Job	Covers transients and generator start	Rides through grid events and outages
Position	Inside the PowerPod or container	Separate enclosures on the site supply

CHARACTERISTICS	
Product	Tesla Megapack 3: about 5 MWh per unit, lithium iron phosphate
Larger sites	Megablock: four Megapack 3 units with transformer and switchgear, about 20 MWh
Supply	Bought by the customer from Tesla, or supplied by PansPower with the blocks
Backup time	120 min standard; sized to the site outage profile and grid rules
Position	In series with the supply: grid, switchgear, BESS, PowerPod / UPS, compute
Grid services	Rides through grid curtailment; supports demand response
Long outages	Beyond about 6 h, add a standby generator
Monitoring	BMS and site controller data into CIOS

Configured per site. Megapack figures are Tesla’s published values. BESS is not an PansPower SKU.



SOFTWARE • INCLUDED WITH EVERY BLOCK

CIOS

Compute Infrastructure Operating System

CIOS ships with every PansPower block. It gives every sensor and setpoint a path, turns alarms into tickets and meters energy and rack-hours for each customer.

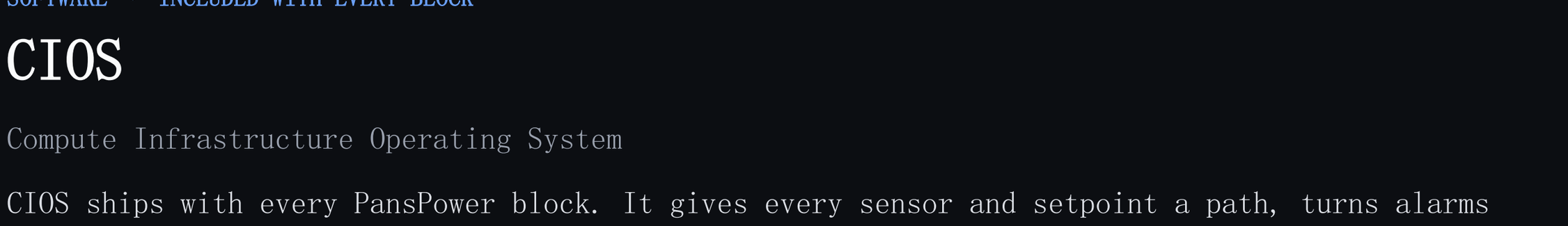
1 box
to start

⩾ 7 days
offline operation

Modbus TCP
and SNMP v2c drivers

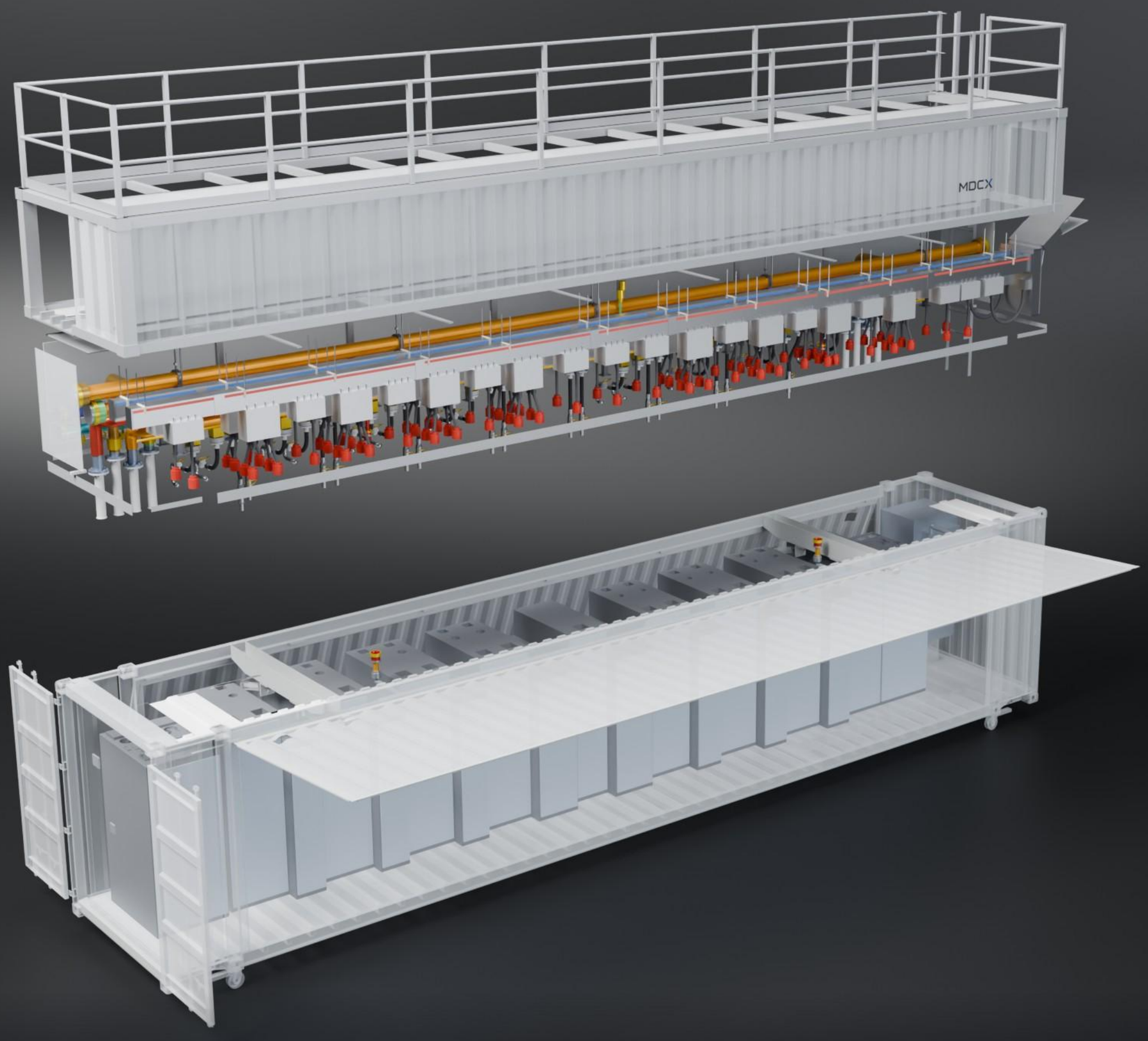
Apache-2.0
open core

```
$ cios query Sgp01.Pod002.Cdu000.Fws.Supply.Flow
```



CIOS ops portal, ticket queue

Path addressing	Pods, CDUs, tanks and loops are objects in an asset tree. Query and set by path; every write is checked against a risk class.
Alarms to tickets	An alarm opens a ticket on the same path: open, acknowledged, resolved, closed. Maintenance windows hold planned alarms.
Usage metering	kWh and rack-hour records with export and rollup, for reconciliation and the customer portal. CIOS does not invoice.
Two portals	Ops portal for tickets, maintenance and the site tree. Customer portal for status, SLA and usage.
Licensing	Drivers, telemetry and usage are open source at the CIOS repository on GitHub. Site twin and capacity engine are commercial.
Roadmap	GPU-level telemetry, multi-site fleet view, AI Ops.



DEPLOYMENT AND SERVICE

Quick deployment and replacement

Lift, plug, run. Swap without draining.

Every block leaves the factory finished and tested. On site, modules are lifted into place and plugged together: no welding, crimping or draining.

ON SITE

1 **Lift**
Standard crane lift onto the pad

2 **Plug**
Water, power and fibre: factory-made plug-in pairs

3 **Test**
Pressure, electrical and live-disconnect tests

4 **Run**
Installation and commissioning, typically 3–4 weeks

REPLACING EQUIPMENT

1 **Unplug**
Busway tap-off and power connectors

2 **Unlatch**
Dry-break couplings close on both sides

3 **Swap**
Rack or in-row unit out through the gullwing door

4 **Reconnect**
Latch, test, return to service

≤ 5 mL
per disconnect (DN100: ≤ 15 mL), type-tested to ISO 18869

6,000
connect cycles at rated pressure, seals intact

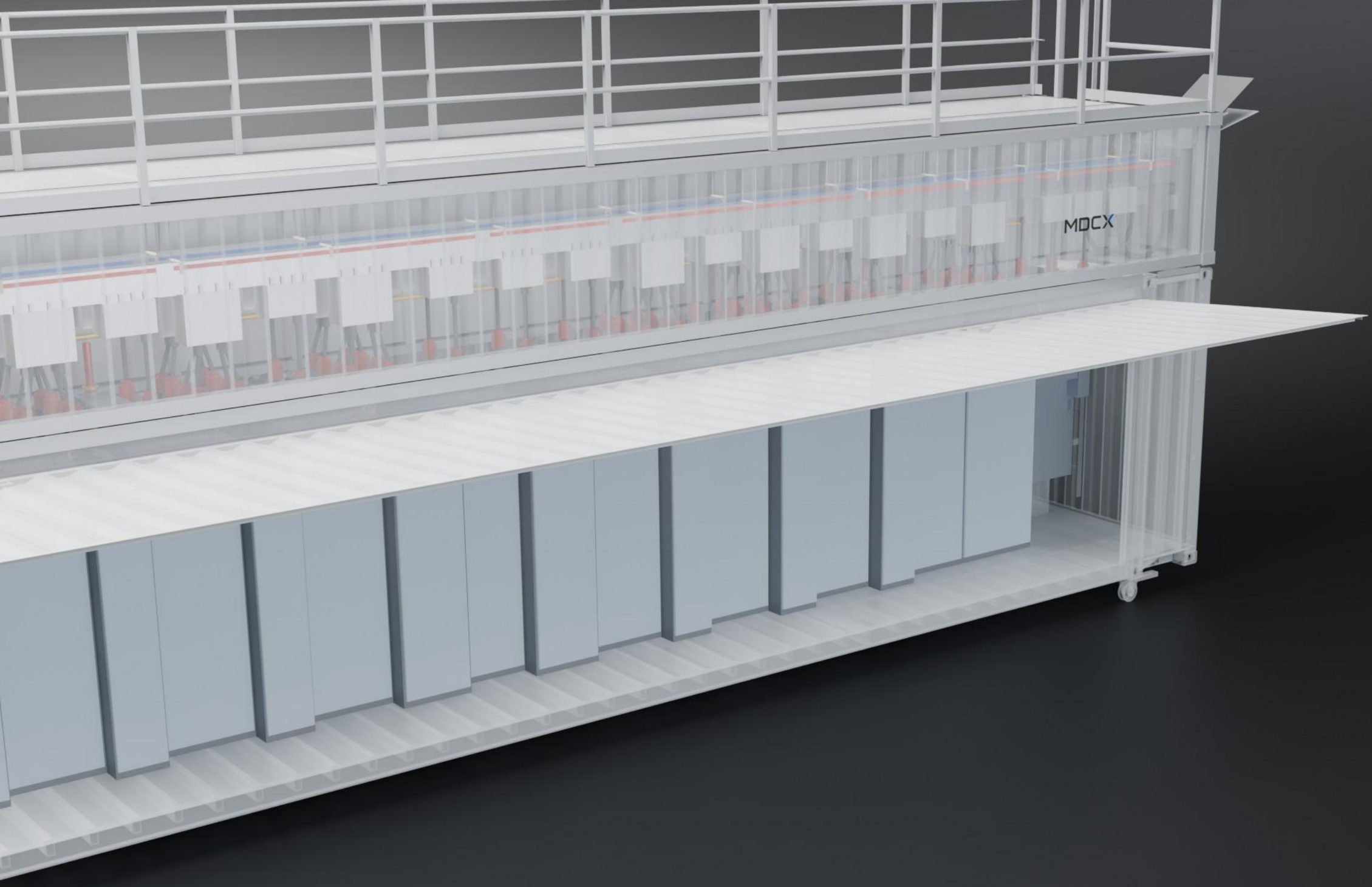
IP67
power, signal and network connectors

24 h
nitrogen tightness test at 0.6 MPa, pressure drop ≤ 1 %

Keyed
couplings cannot be fitted to the wrong circuit

10 %
spare hoses and cables per class

Connector standard and test methods are published at panspower.com/docs/standards/connectors.



CERTIFICATION

Certification and vendor qualification

NVIDIA RVL • UL • CE

PansPower builds with certified devices and NVIDIA RVL suppliers. The complete block is going through system-level UL and CE assessment.

NVIDIA RVL

Recommended Vendor List

PansPower sources its liquid-cooling equipment from suppliers on NVIDIA’s Recommended Vendor List.

In place

UL

North America

Device level: UL-listed equipment where applicable. System level: the complete block is to be assessed to UL 2755, the listing for modular data center equipment. Site installation to NEC Article 646.

Device level: in place • System level: expected 2027

CE

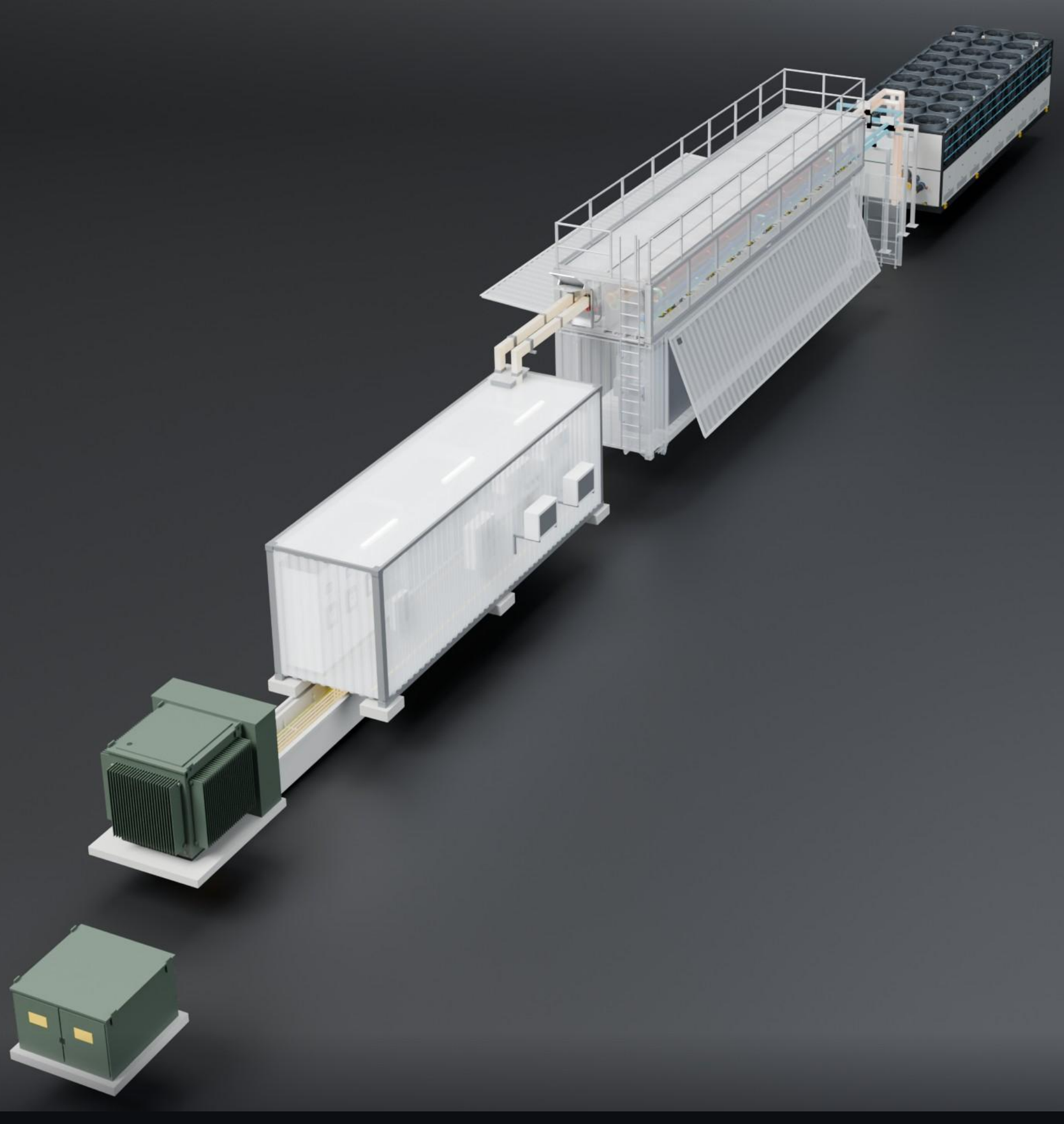
European Union

Device level: CE-marked equipment. System level: CE assessment of the complete block to the applicable EN standards.

Device level: in place • System level: expected 2027

Other markets	KC (Korea) and other national marks per project
Battery systems	UL 9540 / 9540A required of the battery system

RVL listing applies to PansPower suppliers, not to the complete PansPower block. System-level certification is not issued until assessment is complete.



DELIVERY

Delivery schedule

120 days for the first block, 90 days for each block after

Ex-works dates count from receipt of down payment. About 99 % of the work is done in the factory.

120 days
First block, ex-works

Site evaluation | Factory build and test, 90 days

90 days
Each block after, ex-works

Factory build and test, 90 days

01 **Site evaluation** — About 30 days, first block only

Survey, grid interface and extra testing. The configuration is fixed to a standard block.

02 **Factory build and test** — 90 days

Built, piped, wired and tested in the factory, including pressure and connector tests.

03 **Transit** — About 7 weeks typical

Sea and road freight for a 45 ft ISO container. Freight and customs are arranged by the buyer.

04 **Installation and commissioning** — About 3 – 4 weeks typical

Crane lift, plug-in connections, joint commissioning, then 5 – 30 days of dummy-load burn-in.

PansPower commits only to the ex-works date. Transit and installation times are typical. The dummy-load burn-in is outside the ex-works commitment.

LIFECYCLE

One partner. Full lifecycle.

Token aggregation

DCM: spot, plan and reserved capacity. Roadmap.

Operations

CIOS: monitoring, alarms, tickets and usage metering for every block.

Lifecycle support

Core-component warranty from EXW, then annual service.

Delivery

Factory-built blocks, installed and commissioned on site.

Design

Site layout and configuration, checked in the Designer and TCO tools at panspower.com.

Consulting

Feasibility, site and investment assessment.

Each service layer moves infrastructure closer to revenue.

ASSURANCE

Operational assurance

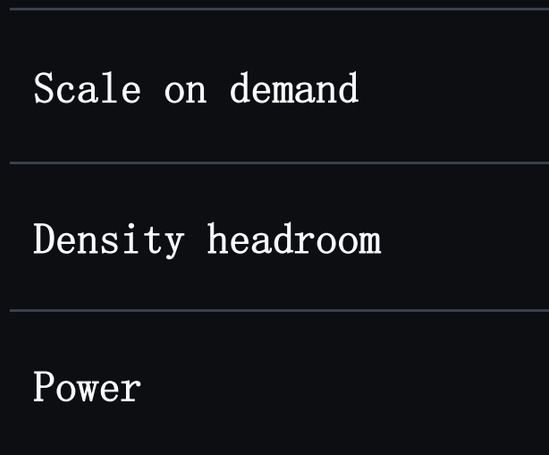
UPTIME TIER	TOPOLOGY	TYPICAL DOWNTIME
Tier IV	Fault tolerant; 2N paths	≈ 26 min / year
Tier III	Concurrently maintainable; N+1	≈ 1.6 h / year
Tier II	Redundant components; single path	≈ 22 h / year
Tier I	Basic capacity; no redundancy	≈ 29 h / year

Tier II investment. Tier III-class availability.

Redundancy is 2N where a failure is expensive and N+1 everywhere else, instead of 2N throughout.

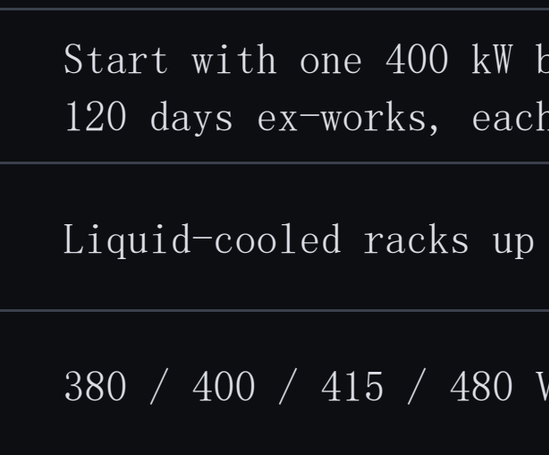
Warranty	Core components 1 year from EXW; annual service after.
Scale on demand	Start with one 400 kW block and add blocks as demand grows. First block 120 days ex-works, each block after 90 days.
Density headroom	Liquid-cooled racks up to 220 kW (TDP); immersion tanks up to 50 kW.
Power	380 / 400 / 415 / 480 V AC. 800 V HVDC on the Roadmap.
Monitoring	CIOS on every block from day one.

DEPLOY ANYWHERE



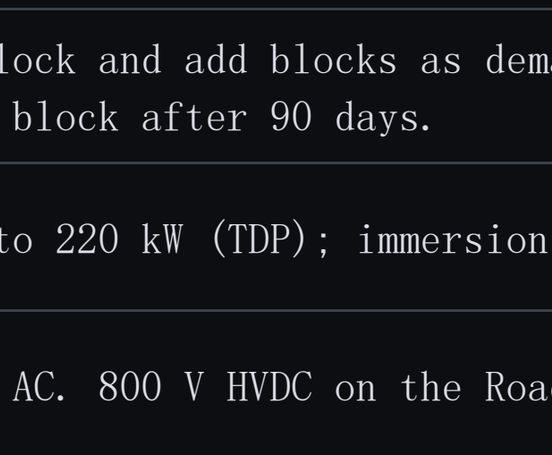
Building

Inside an existing hall or plant room



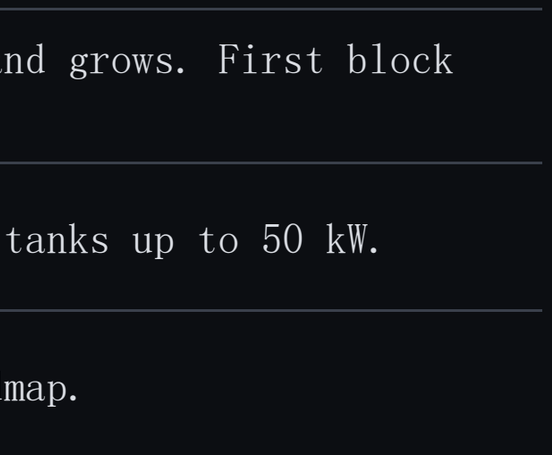
Warehouse

Rows of blocks under one roof



Open ground

Outdoor pad next to the power



Steel frame

Light shelter over outdoor blocks

Tier definitions summarize the Uptime Institute topology classes for context. PansPower blocks are not Uptime-certified facilities.



PAN'S POWER

Modular data centers for AI compute

Sales	susan.leung@panspower.com
Web	panspower.com
Headquarters	Shanghai

This brochure may not reflect the latest updates. For current products, specifications and documents, refer to panspower.com.

© 2026 PansPower. Specifications are design values and may change. Roadmap items are not available today. NVIDIA, GB300, B300, Vera Rubin and RTX are trademarks of NVIDIA Corporation. Tesla, Megapack and Megablock are trademarks of Tesla, Inc.