

APR AIDC 800V BBU

Energy storage for the 800 VDC AI Data Centre power architecture

The APR AIDC 800V BBU is a fully integrated energy storage unit designed for AI data centres running 800 VDC power architecture. Immersion cooled and rack-native, it connects directly to existing facility infrastructure.

Benefits

High continuous power

Immersion cooling technology enables a continuous charge or discharge of up-to 48kW and peak loads of 75 kW.

Easy installation

Liquid-to-liquid heat exchanger integrates the immersion cooling system with the data centre CDU.

No additional infrastructure

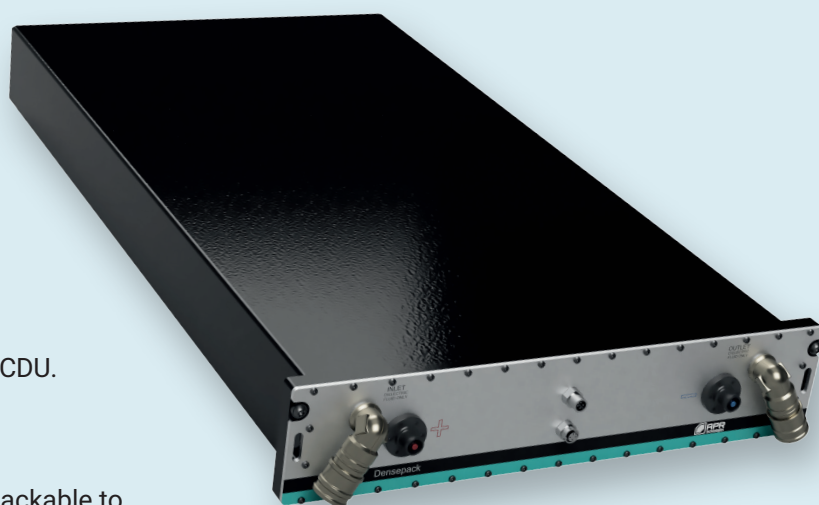
The BBU conforms to standard 19-inch rack, stackable to 768 kW in NVIDIA MGX Sidecar.

Integrates with existing systems

The control and management interface of the BBU is MODBUS-TCP.

Complete and ready to install

16 kWh immersion cooled battery pack integrated with a DC-DC converter for 800 VDC bus connection.



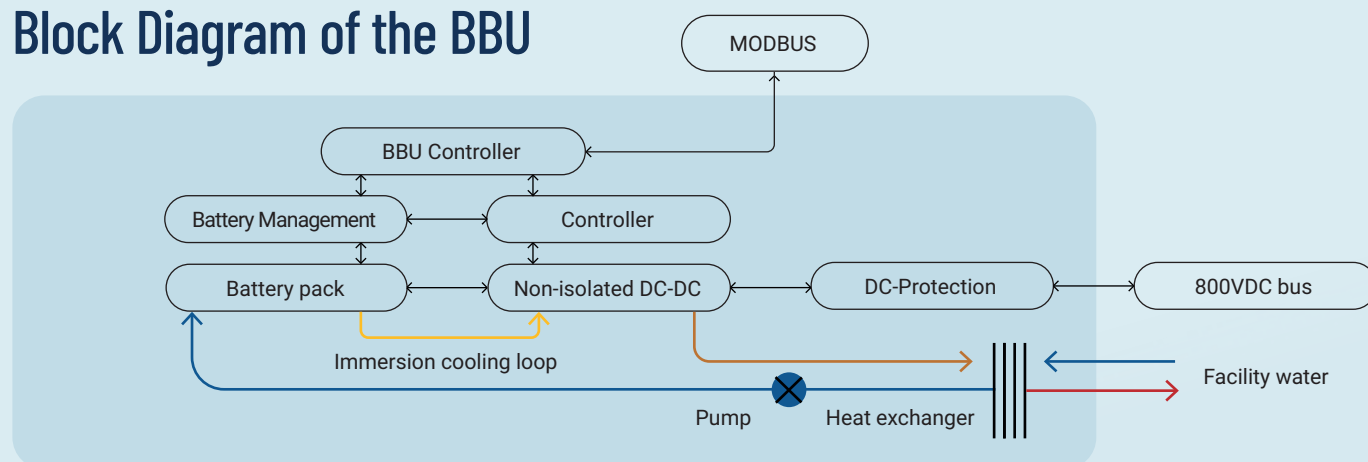
Applications

Reliable backup power is critical in high-density data centre infrastructure. As AI workloads drive demand for higher power density, immersion cooled battery storage offers a competitive advantage in both continuous power handling and total cost of ownership.

Technical Data

Voltage	800 VDC
Input / output power	48 kW
Peak input / output power	75 kW
Battery capacity	16 kWh
Battery voltage nominal	512 VDC
Battery cell chemistry	LFP
Dimensions	3U , 19 inch rack , 1200mm depth
Weight	120 kg
Communication	Modbus TCP
Internal cooling	Immersion liquid
External cooling	Facility water (< 40 °C)
Integrated Bi-directional DC-DC	800 VDC

Block Diagram of the BBU



About APR

APR Technologies is a Swedish deep tech company, developing and producing high-performance liquid cooling solutions for applications in chip cooling, batteries, space and defence. The technology directs cooling liquid flow directly to the heat source using no moving parts and is protected by more than 70 granted patents in 22 countries. APR Technologies is headquartered in Enköping, Sweden.

Disclaimer This energy storage is a demonstration unit developed for evaluation and testing in data centers. The specifications, performance characteristics, and other technical data provided in this datasheet are preliminary, and subject to change without notice. This product is not a production-ready unit and has not been fully validated for durability, safety, or regulatory compliance required for data centers. It may not meet applicable standards, certifications, or requirements.

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