



Infrastructure **You** Own
Data **You** Control

BitHeat Model One



PRODUCT DATA SHEET

bitheat_model_one | Rev. 1.0

BitHeat Model One

Product Description

BitHeat is a compact, modular cloud-edge computing system featuring six server slots and scalable performance of up to 3.2 kW. The plug-and-play module can be installed within existing building structures without the need for additional floor sealing. All electricity is preferentially sourced from locally generated renewable energy.

The servers operate in a sealed immersion oil cooling loop, allowing particularly efficient heat dissipation. The resulting waste heat is transferred to the heating network via a highly efficient heat exchanger; the heated water reaches 55–60 °C and can be used immediately for space heating, hot water supply, or industrial process heat.

The modular design is compatible with conventional heating technologies – heat pumps, district heating, or gas systems. BitHeat covers the base load, while the existing heating system handles peak demand. By being placed decentrally within the building, a closed loop of local energy generation, data processing, and heat recovery is created. This reduces transmission losses, strengthens digital sovereignty, and improves the CO₂ balance for all users requiring an energy-efficient, secure edge-computing solution.



Product Features

- Decentralised Edge Computing Architecture – reduced latency and optimised real-time applications through local data processing
- Optional Software Stack – preconfigured with Proxmox and Ceph; optional BaaS deployment available
- Full Data and Operational Sovereignty – data remains on-site, protected by physical security and access controls
- Intuitive Smart Dashboard – app- and web-based interface for monitoring, remote maintenance, and LED status feedback
- Compatible with Existing and New Buildings – ready to operate with standard heat generators (e.g., heat pumps, district heating, gas)
- “Place Everywhere” – flexible installation in any room with connection to the heating circuit
- Plug-and-Play Integration – simple connection to existing heating circuits for immediate use of waste heat in heating and hot water applications
- Maximum Operational and Environmental Safety – reinforced double-walled construction

Technical Specifications

Mechanical Data	Dimensions (L × W × H)	645 x 610 x 1225 mm
	Footprint	0.39 m ²
	Unladen Weight	200 kg
	Total Weight	297 kg
	Maximum Immersion Fluid Capacity	120 l
	Load Bearing Points	4
	Max. Surface Load	0.234 N/mm ²
Electrical Data	Rated Voltage	230 V
	Mains Frequency	50 Hz
	Max. Connected Load	3.2 kW
	Connection Type	Hardwired
	Protection Class	1
	Protection Rating	X0
IT Data	Max. Number of Servers	6
	Max. Rack Units	3
	Form Factor	1 HE
	Max. Width	19 Zoll
	Max. Installation Depth	897 mm
	Max. RAM	9.216 GB
	Max. Storage	48 TB
	Optional Storage	on request
	CPU	Intel® Xeon® und AMD EPYC™
	GPU	Prepared hardware-side, GPU models on request
	Max. TDP	250 W
Immersion Fluid	Typ	Synthetic Fluid
	Max. Operating Temperature	65 °C
Hydraulic Data	Primary Circuit Fluid	Synthetic Immersion Fluid
	Operating Temperature Primary Circuit	60 °C
	Max. Operating Pressure Primary Circuit	0.5 bar
	Secondary Circuit Fluid	Heating water per VDI 2035 or equivalent
	Max. Output Temperature Secondary Circuit	55 °C
	Max. Operating Pressure Secondary Circuit	10 bar
	Flow Connection Thread	ISO 228 – 1" internal thread
Return Connection Thread	ISO 228 – 1" internal thread	
Environmental Conditions	Installation Location	Indoor
	Recommended Ambient Temperature	+15 bis +25 °C
	Permissible Ambient Temperature	+5 bis +40 °C
	Air Quality	Free from dust and other contaminants
	Relative Humidity	5-80 %, non-condensing
	Max. Permissible Vibration (Operation)	0.7 mm/s
	Max. Shock/Impact (Transport)	15 g
	Max. Noise Level	50 dB SPL

Dimension Sheet

