

terahash.datablock R150

powered by Vaiking

Highly Integrated Indoor Micro Data Center with Intelligent Control for Heat Recovery

HIGH PERFORMANCE

Direct water cooling enables high power density with low noise levels. Depending on the hardware used, different temperature levels of up to 65 °C can be provided for waste heat utilization. Intelligent reuse of waste heat is possible from the transfer point onwards.

FLEXIBLE INFRASTRUCTURE

Modular use of water-cooled high-performance systems such as HPC/GPU/ASIC.

SECURITY

Self-contained, secured unit with network, security and UPS technology.

COMPLETE PROJECT-SPECIFIC AUTOMATION

Revenue prioritization, cooling circuit optimization, waste heat control, colocation billing, thermal protection and automation of operating processes – with local control and full data ownership. Optional AI module for self-optimization through anomaly detection and predictive analytics.

MADE IN GERMANY

Structural and technical fire protection, access concepts, standards compliance and certifications for infrastructure that works reliably in the long term.

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Product Data

PHYSICAL

System type: Micro data center

Dimensions (W x D x H in m):

0.75 x 1.20 x 2.23

Empty / operating weight:

180 kg / 800 – 1,000 kg

Footprint: ≈ 0.90 m²

Operational space requirement: ≈ 5 m²

Compatible hardware:

Water-cooled 19-inch GPU servers /
ASIC miners

High rack density: 48U

Ambient temperature: 0 °C to +40 °C

PERFORMANCE & EFFICIENCY

Max. electrical connected load:

up to 150 kW

Max. IT load: up to 135 kW

PUE: 1.03 – 1.06 at 25 °C ambient temperature

EQUIPMENT

- Enclosure: IP54, dust- & splash-proof, suitable for gas extinguishing systems
- Cooling: Complete water cooling (DLC) incl. manifolds
- Monitoring: Temperature/humidity or multi-sensor incl. early fire detection
- Power supply: Smart PDU – every port switched & metered
- Control: Automation & management via Vaiking & Vaiking Appliance
- LED lighting, access control, safety notices, optional gas extinguishing system

COOLING & WASTE HEAT

Cooling principle:

Direct Liquid Cooling (DLC)
incl. manifolds

Usable waste heat: up to 65 °C

Supply / return temperature:

≈ 45 °C / 55 °C

Flow rate:

up to 220 l/min or 13.2 m³/h

CONNECTIONS

Voltage & frequency: 400 V AC, 3~, 50 Hz

Water (supply/return):

Connection size DN32 – 1 1/4"

Power: Connection type defined on site
by the customer

Network: Standard Ethernet, optional
fiber optic

Use Cases

- High-performance computing for edge applications
- Mobile and modular expansion of existing IT infrastructure with self-contained, secured units
- Flexible load management for grid- and market-oriented operation
- Self-consumption optimization and additional revenue streams possible
- Utilize surplus energy and integrate waste heat into local energy systems
- Independence through savings in fossil-based heat supply