



# Direct Liquid Cooling in the Rack – the solution for high-performance server infrastructures

Network sovereignty. An all-encompassing approach.

The joint solution developed by SCHÄFER IT-Systems and Thomas-Krenn.AG defines the standard for energy-efficient data centre infrastructure: A modular rack system with direct liquid cooling and hybrid air/water cooling that can handle up to 50 kW per rack. Preconfigured servers, integrated monitoring and standardised service make implementation as easy as plug and play. For SMEs, this means: Maximum performance, network sovereignty and sustainable technology – all from a single source, “**Made in Germany**”.

## Your benefits:

- European **network sovereignty**
- **All-in-one solution** instead of individual components
- Significantly **lower total cost of ownership (TCO)**
- **High power density** combined with controlled cooling
- Planning, operation and service **from a single source**

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# Direct liquid cooling from SCHÄFER and Thomas-Krenn.AG



## Micro DC 44-Server

- Direct Liquid Cooled Server
- InRack DLC standard
- Manifold system
- Side cooler
- Redundant 3-phase PDU
- Monitoring

### Benefits

As computing power increases and space becomes scarce, this solution achieves high performance with a minimal footprint.

To prevent AI loads from reaching thermal limits, this solution provides reliable, efficient cooling under full load.

To meet increasing requirements without the need for modifications, the system can be flexibly expanded.

To get projects underway quickly despite the shortage of skilled workers, the solution is provided ready to plug in.

To operate modern IT applications without dependencies, the platform supports open architectures.

To prevent unplanned downtime, the solution detects anomalies proactively and at an early stage.

To effectively protect edge infrastructure, this solution combines physical and digital protection.

To achieve environmental goals, the solution reduces emissions through its materials and cooling concept.

To simplify operation, the solution offers clear service processes and centralised monitoring.

To enable different workloads to be operated efficiently, the platform covers many scenarios.

### Features

Up to 50 kW per rack

Hybrid cooling using water and air

Modular system design

Plug and play setup

Compatible with all major software platforms

AI-supported monitoring and predictive maintenance

Physical and cyber security

CO<sub>2</sub>-optimized cooling and waste-heat recovery potential enabled by high system temperatures

Standardised service agreements and remote monitoring

Ready for AI, edge and hybrid cloud