Technical Data Sheet

ICEOTOPE KUL BOX XE7740

The Iceotope KUL BOX XE770 rack server delivers significant advantages for environments where enhanced thermal management, quiet operation and maximum performance are critical and a modular design which allows scalability for any size deployment.

This server uses liquid cooling to capture almost all of the heat generated by the system, which is then released outside through a liquid-to-air cooler.

Iceotope technology reduces cooling costs by up to 83% and water use by up to 96% vs. air-cooled servers.

ICEOTOPE KUL BOX XE7740 PRODUCT FEATURES:

- 24U rack with Iceotope KUL AI chassis
- 4 Dell XE7740 servers
- 32 NVIDIA H200 GPUs
- Top-of-rack network switch

Sustained Compute Performance

Low Op-Ex Costs

Extended UPS Runtime

Increased Hardware Stability

Environmental Resilience

Near Silent Operation

Sustainable Operation

Rapid Deployment

OUTDOOR COOLER
*NOT TO SCALE

INDOOR RACK
*NETWORK CABLES NOT SHOWN

WORKING IN PARTNERSHIP WITH: POWERED BY DELL Technologies · UNICOM Engineering, Inc. A Division of UNICOM Global

SHIPPING / INSTALLATION / SERVICE / WARRANTY

Iceotope's turn-key solution includes shipping, installation, operational training and handover. The service plan covers all parts and labor for 3 years, including coverage for all supplied hardware.

POWER / COOLING

Total Rack Power Draw	27kW
Cooler Power Draw (avg)	5kW (estimated @ 68°F / 20°C air temp)
Cooler Power Draw (max)	9.5kW
Total System Power Draw	36.5kW
*Predicted pPUE (avg)	1.2
Water Consumption WUE	0
Power (Indoor Rack)	400V - 460V AC / 3PE / 50Hz - 60Hz
Power (Outdoor Cooler)	400V AC / 3PE / 50Hz
Outdoor Cooler Working Fluid	Water Glycol Solution
Server Chassis Coolant	Shell S3X single-phase hydrocarbon (see website for other approved vendors)
Outdoor Cooler to Rack Connection	2x 1" (flow & return)
Regions	UK / EU / USA / APAC

* pPUE may vary depending on deployment location, seasonal temperature variations and rack utilization.

[1] https://iceotope.info/cundallreport Page 4: Total Cost of Cooling per KW of ITE Power: - 83.5%; Water usage per KW of ITE Power: - 96.1%

DIMENSIONS / WEIGHT

Rack size (inches)	L:66.9 / W:23.6 / H:50.9
Cooler size (inches)	L:35.8 / W:28.3 / H:49.2
Rack installed weight	1000 kg
Cooler Installed weight	182 kg

ENVIRONMENTAL

Inside Air Temperature (local to rack)	95°F / 35°C MAX
Outside Air Temperature (local to cooler)	5°F / -15°C to 122°F / 50°C
Deployment Environment (local to rack)	Indoor Use Only / Not IP Rated
Deployment Environment (local to cooler)	Outdoor Use Only / IP54 Rated
Maximum Sound Level (local to rack)	< 40 dB
Maximum Sound Level (local to cooler)	< 64.7 dB

REGULATORY COMPLIANCE

Iceotope products are stringently engineered in accordance with relevant regional standards. Further detail on request.

c UL us LISTED · CE · UK CA · FC · RoHS COMPLIANT · REACH COMPLIANT

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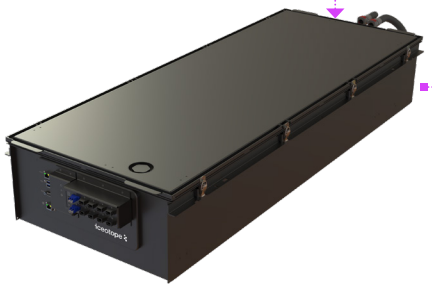
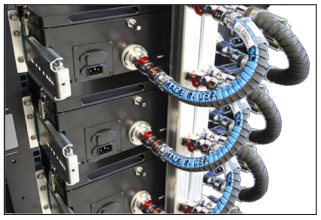
ICEOTOPE KUL BOX XE7740



100% LIQUID-COOLED

FOR FURTHER INFORMATION ON SERVER COOLING TECHNOLOGY CLICK HERE.

AIR-COOLED



CHASSIS REAR COOLANT CONNECTION

EXAMPLE DELL XE7740 SERVER

8x NVIDIA H200 GPUs	4800W
2x Intel Xeon 6 CPUs	700W
32x 128GB DDR5 Memory	448W
8x 15.36TB NVMe E3.S Drives	200W
NIC: 1x OCP 100G + 4x 200G	140W
Motherboard & other components	500W
Total	6790W

NETWORK SWITCH

32 port 200G Ethernet	TBC

ENHANCED COOLING RESILIENCY

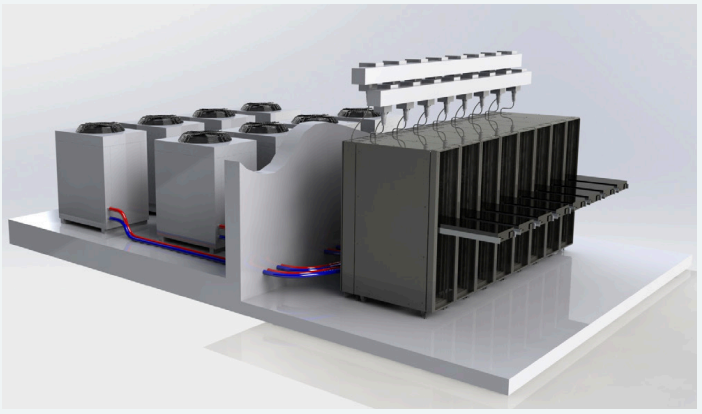
In the event of external power interruption or failure, internal dielectric fluid pumps will maintain system cooling for up to 5 minutes if backup power is still supplied to the rack.

The volume and heat capacity of the dielectric fluid used in Iceotope servers provides a significant safety buffer, enabling extended UPS runtime before its thermal limits are reached. If external power is resumed within 5 minutes, the system will return to normal operation without additional intervention.

PDU

Power Configuration	60/63A, 240/415V
Switched Outlet Level Monitoring	C13/19

MODULAR SCALABLE DESIGN



Indicative image showing a cluster of 8 KUL BOX units. The modular design allows for sites to expand the quantity of KUL AI servers and KUL BOX systems based on their requirements, negating the need to over spec CDU and facility cooling for potential future growth.