# **Technical Data Sheet**

# **ICEOTOPE KUL BOX R760**



The Iceotope KUL BOX R760 rack server delivers significant advantages for environments where enhanced thermal management, quiet operation and maximum performance are critical.

This compact 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.1

#### **ICEOTOPE KUL BOX R760 PRODUCT FEATURES:**

- 24U rack with 6 Iceotope KUL AI chassis
- 6 Dell PowerEdge R760 Servers
- 12 NVIDIA H100 GPUs
- Top-of-rack network switch



Sustained Compute Performance



Environmental Resilience



Low Op-Ex



Near Silent Operation



Extended UPS



Sustainable Operation



Increased Hardware Stability



Deployment



**Outdoor Cooler** \*not to scale

Indoor Rack

\*network cables not shown

Working in partnership with:







## 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	14W
Cooler Power Draw (avg)	5kW (estimated @ 68°F / 20°C air temp)
Cooler Power Draw (max)	9.5kW
Total System Power Draw	19.5kW (avg) / 23.5kW (max)
*Predicted pPUE (avg)	1.3
Water Consumption WUE	0
Power (Indoor Rack)	400V - 460V AC / 3PE / 50Hz - 60Hz
Power (Outdoor Cooler)	400V - 460V AC / 3PE / 50Hz - 60Hz
Outdoor Cooler Working Fluid	Water Glycol Solution
Server Chassis Coolant	Shell S3X single-phase hydrocarbon (see <u>website</u> for other approved vendors)
Outdoor Cooler to Rack Connection	2x 1" (flow & return)
Regions	UK / EU / USA / APAC

<sup>\*</sup> pPUE may vary depending on deployment location, seasonal temperature variations and rack utilization.

# **DIMENSIONS / WEIGHT**

Rack size (inches)	L:61.1 / W:23.6 / H:50.9
Cooler size (inches)	L:28.4 / W:35.8 / H:49.2
Rack installed weight	600 kg
Cooler Installed weight	180 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)	

#### REGULATORY COMPLIANCE

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











<sup>&</sup>lt;sup>1</sup>https://go.iceotope.com/cundall-engineering-report-executive-summary Page 4: Total Cost of Cooling per KW of ITE Power: - 83.5%; Water usage per KW of ITE Power: - 96.1%

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For further information on server cooling technology <u>click here.</u>

## DELL POWEREDGE R760 SERVERS

2x NVIDIA H100 GPUs	700W
2x Intel Xeon Platinum 8592+ Processors	700W
16x 64GB DDR5 Memory	160W
5x 3.84TB SSD SATA	50W
NIC: 1x OCP 25GB + 1x 100GB	30W
Motherboard	200W
Total	1840W

# NETWORK SWITCH

32 port 100GB Ethernet	100W

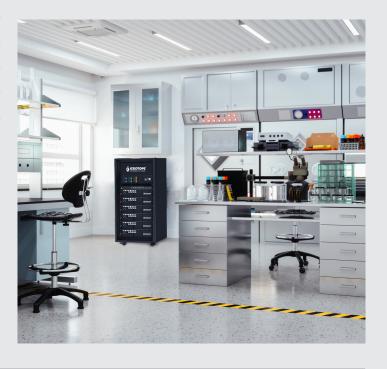
## ENHANCED COOLING RESILIENCY

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



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