

# Technical Data Sheet



## ICEOTOPE XE7740-ICEC

The Iceotope XE7740-ICEC edge thermal routing cabinet 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 configuration 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 XE7740-ICEC PRODUCT FEATURES :

- 24U rack
- Up to 4 Dell XE7740 servers
- Up to 32 single-wide 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 —

### SHIPPING / INSTALLATION / SERVICE / WARRANTY

The XE7740-ICEC edge cabinet configuration 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	26kW
Cooler Power Draw (avg)	8kW (estimated @ 68°F / 20°C air temp)
Cooler Power Draw (max)	16.5kW
Total System Power Draw	42.5kW
*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 <a href="#">website</a> for other approved vendors)
Outdoor Cooler to Rack Connection	2x 1" - 1.5" (flow & return)
Regions	UK / EU / USA / APAC

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

<sup>1</sup> <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:66.6 / W:23.6 / H:47.2
Cooler size (inches)	L:40.9 / W:56.6 / H:74.4
Rack installed weight	1700 kg
Cooler Installed weight	411 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)	< 68.7 dB

### REGULATORY COMPLIANCE

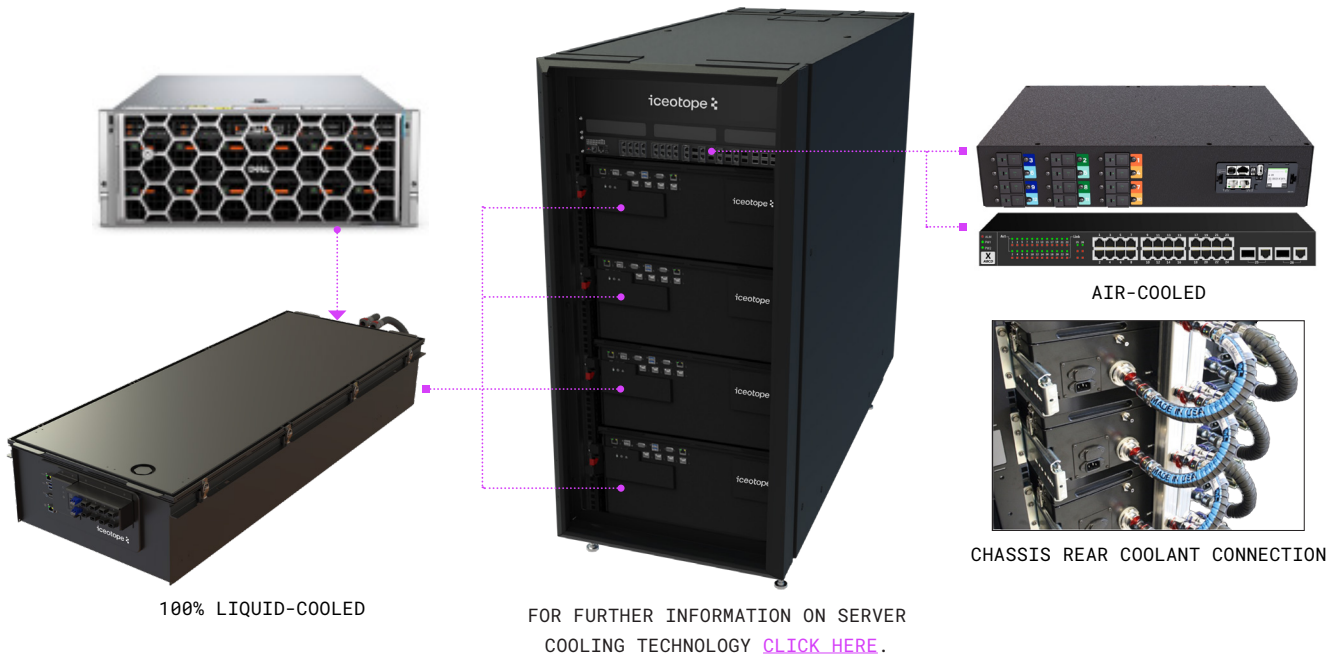
Iceotope products are stringently engineered in accordance with relevant regional standards. Further detail on request.



# Technical Data Sheet

ICEOTOPE XE7740-ICEC

iceotope 



100% LIQUID-COOLED

FOR FURTHER INFORMATION ON SERVER COOLING TECHNOLOGY [CLICK HERE](#).

AIR-COOLED

CHASSIS REAR COOLANT CONNECTION

## DELL XE7740 SERVERS

Up to 8x PCIe Gen 5 double-wide GPUs (600W each) or 16x single-wide GPUs (75W each)	4600W
2x AMD EPYC 9005	1000W
24x 64GB DDR5 Memory	225W
8x 3.84NVMe E3.S Drives	96W
NIC: 1x OCP 25GB + 4x 100GB	270W
Motherboard	150W
<b>Total</b>	<b>6340W</b>

## NETWORK SWITCH

32 port 100GB Ethernet	TBC
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## ENHANCED COOLING RESILIENCY

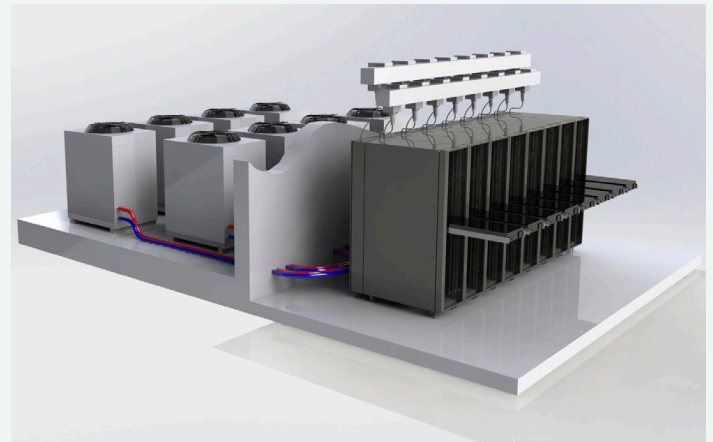
In the event of external power interruption or failure, internal dielectric fluid pumps will maintain system cooling for up to 5 minutes if backup power is still supplied to the rack.

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 XE7740-ICEC units. The modular design allows for sites to expand the system footprint based on their requirements, negating the need to over spec CDU and facility cooling for potential future growth.

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