

Technical Data Sheet

ICEOTOPE XE7740-ICEC

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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.

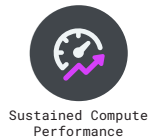
ICEOTOPE XE7740-ICEC PRODUCT FEATURES:

- 24U rack
- Up to 4 Dell XE7740 servers
- Up to 32 NVIDIA H200 or RTX Pro 6000 GPUs
- Top-of-rack network switch

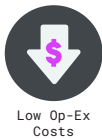


OUTDOOR COOLER
*NOT TO SCALE

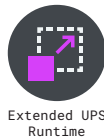
INDOOR RACK
*NETWORK CABLES NOT SHOWN



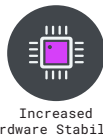
Sustained Compute Performance



Low Op-Ex Costs



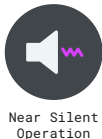
Extended UPS Runtime



Increased Hardware Stability



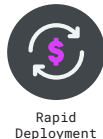
Environmental Resilience



Near Silent Operation



Sustainable Operation



Rapid Deployment

WORKING IN PARTNERSHIP WITH:

— POWERED BY —
DELL Technologies

UNICOM
Engineering, Inc.
A Division of UNICOM Global



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	27kW
Cooler Power Draw (avg)	5kW (estimated @ 68°F / 20°C air temp)
Cooler Power Draw (max)	9.5kW
Total System Power Draw	32kW (avg) / 36.5kW (max)
*Predicted pPUE (avg)	1.2
Water Consumption WUE	0
Power Requirements (Rack & Cooler)	400V AC / 3PE / 50Hz (UK/EU) 460V AC / 3PE / 60Hz (US) Additional voltages supported on request
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)

* 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:66.6 / W:23.6 / H:50.9
Cooler size (inches)	L:35.8 / W:28.3 / H:49.2
Rack installed weight	2200 lb / 1000 kg
Cooler Installed weight	401 lb / 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.



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EXAMPLE DELL XE7740 SERVER

8x NVIDIA RTX Pro 6000 GPUs	4800W
2x Intel Xeon Platinum 6767P CPUs	700W
16 x 96GB DDR5 (1.5TB) Memory	338W
8x 15.36TB NVMe E3.S Drives	200W
NIC: 1x OCP 100G + 4x 400G	140W
Motherboard and other components	500W
Total	6678W

NETWORK SWITCH

32 port 200G Ethernet	TBC
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ENHANCED COOLING RESILIENCY

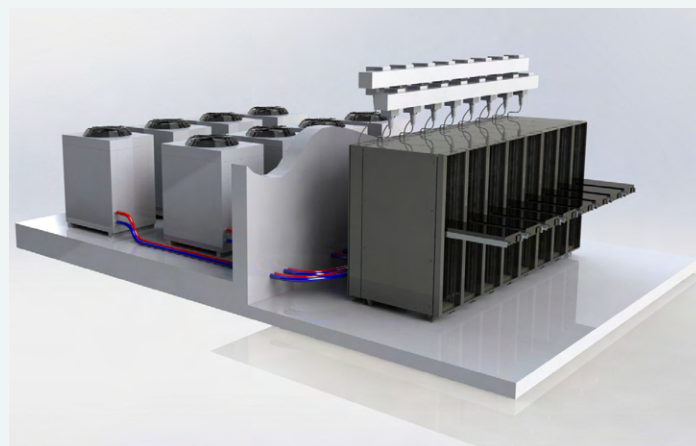
In the event of external power interruption or failure, internal dielectric fluid pumps will maintain system cooling for up to 5 minutes if backup power is still supplied to the rack.

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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