



Smarter with Intel®. Stronger with Crystal Group.

Energy is essential to modern day living and homeland security, which is why power companies are undergoing a major transformation to protect energy resources now and for years to come. The Crystal Group Energy Series™ (ES) delivers optimized solutions—powered by Intel—to ensure long-lasting, high-performance computing in unpredictable conditions.

The ES374L24 substation solution delivers reliable power and performance in a rugged chassis that can withstand the intense conditions of remote locations, such as extreme climates, weather conditions, temperatures, moisture, and dust. Enabling critical power grid capabilities, like constant monitoring, real-time alerts, automation, and remote management, allows power generation, transmission and distribution to flow smoothly while being protected from both physical and cyber threats.

Solution Benefits

Proven performance. Our designs incorporate exceptional thermal protections that are crucial for seamless compute operations in the most remote and unpredictable environments. In addition, all Crystal Group products are field-tested and proven to meet strict military and industrial standards.

Flexible, reliable and protected. With exceptional processing power in a flexible, scalable system, the ES374L24 is easily integrated, upgraded, and interoperable with legacy equipment. Real-time remote management means system updates and adjustments can be made to one or more substations with the push of a button.

Customized for you. We use leading-edge commercial-off-the-shelf technologies and open architecture solutions to deliver high-performance systems tailored to your specific compute needs.

Cost effective. Designed to protect your investment, this rugged server delivers reliable, long-life performance, limits maintenance demands, and maximizes system uptime for a low total cost of ownership.

FEATURES

- Lightweight aluminum construction at 40–45 lbs.
- 17" server easily mounted using Delrin glides
- Up to 1.5 TB of memory
- Versatility with up to 12 SATA/SAS 2.5" drive bays
- Expandable with seven slots
- Dual Intel® Xeon® Cascade Lake Scalable processors
- 24" depth chassis
- Modular I/O
- Five-year warranty

A clear advantage.

Specifications

Mechanical 3U

Height: 5.25" (13.34 cm)
Width: 17.5" (44.45 cm) EIA-310 rack compliant
Depth: 24" (60.96 cm)
Weight: 40-45 lbs. (18.14-20.41 kg) [content dependent]

CPU

Intel® Xeon CPU architecture options from Intel embedded long-life roadmap

Dual-socket Skylake and Cascade Lake Scalable processors; up to 24 cores

Expansion

Seven PCIe

External Bay

12 9.5mm or six 15mm drive bays supporting removable SATA/SAS/NVMe 2.5" bays

Memory

32 GB - 1.5 TB DDR4

Mounting

Mounted on Delrin glides

Power Supply

Option 1: Dual input, redundant, 400W, 120/240VAC + 125VDC
Option 2: Dual input, redundant, 400W, 125VDC + 125VDC

Environmental Standards

Operational temperature: -35°C to +40°C¹
Storage temperature: -40°C to +85°C¹
Humidity: 95% non-condensing with humidity kit¹
Altitude: 12,500ft operation, 40,000ft transport¹

Electromagnetic Compatibility Standards

Note: Some standards may require an internal kit

IEC 61850-3, International Standard Communication Networks and Systems for Power Utility Automation (covers environment and EMC concerns)¹

IEEE 1613, Standard Environmental and Testing Requirements for Communications Networking Devices in Electric Power Substations¹

Emissions: Radiated FCC Part 15. 109, Class A; conducted FCC Part 15. 107, Class A¹

Testing with solid state drives

Cooling

Multiple, redundant, high-speed, high-volume fans; CPU temperature controlled

Customization

Customization of all components and integration services available

Software Compatibility

Supports Windows 10®, Windows Server 2019®, VMware®, or Linux®



1 - Designed to meet standard

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