CRYSTAL ES™

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 ES373S17 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 protection that is crucial for seamless compute operation 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 ES373S17 is easily integrated, upgraded, and interoperable with legacy equipment. Real-time remote management means system updates and adjustments can be made as needed 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.

A clear advantage.

FEATURES

- Lightweight aluminum construction, 35 – 40 lbs.
- 17" server easily mounted using Delrin glides
- Up to 768 GB of memory
- Supports up to 9 SSDs
- Intel® Cascade Lake CPU support
- Expandable with seven slots
- Modular I/O
- Five-year warranty

Specifications

Mechanical 3U

Height: 5.25" (13.34 cm)
Width: 17.5" (44.45 cm) EIA-310 rack compliant
Depth: 17" (43.2 cm)
Weight: 35-40 lbs. (15.87-18.14 kg) [content dependent]

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

Single or dual socket Cascade Lake, Intel Xeon® Scalable processor; up to 28 cores

Expansion

Seven PCI-e

External Bay

Up to nine 2.5" SATA or six NVMe SSDs

Memory

16 - 768 GB ECC DDR4

Mounting

Mounted on Delrin glides

Environmental Standards

Operational temperature: -40°C to +55°C
Storage temperature: -40°C to +85°C[1]
Humidity: 95% non-condensing with humidity kit[1]
Altitude: 12,500ft operation, 40,000ft transport[1]

Electromagnetic Compatibility Standards

Emissions: Radiated FCC Part 15. 109, Class A; conducted FCC Part 15. 107, Class A[1]

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 Substations[1]

Cooling

Six high-speed, high-volume fans; CPU temperature controlled

Customization

Customization of all components and integration services are available

Software Compatability

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

Power Supply

Option 1: 400W, 88-132VDC
Option 2: 460W, 110/220VAC

1 - Designed to meet standard

AS9100D CERTIFIED
ISO 9001