LayerZero
Power Systems, Inc.

Static Transfer Switches
Critical Power Distribution Systems

The Foundation Layer

The LayerZero eSTS Static Transfer Switch
Protects Against Power Outages

eSTS Adds A Layer Of Reliability

Designed for applications that require the highest standard in power reliability, the LayerZero Series 70 eSTS: Static Transfer Switch provides unparalleled power protection, a last line of defense before the critical load is compromised. If the primary source fails, eSTS transfers to the secondary source *so fast* that the critical load output experiences no interruption. As is standard with all LayerZero products, the eSTS Static Transfer Switch comes equipped with built-in waveform capture. Immediately upon transfer, an email is sent with a picture of the waveform. Available in 3-Pole and 4-Pole configurations from 150 A to 4000 A, the LayerZero Series 70: eSTS Static Transfer Switch protects against power outages for enterprises of all sizes.

800 A 4-Pole eSTS Static Transfer Switch

600 A 3-Pole eSTS Static Transfer Switch

State of the Art Thermal Solutions Without Fans

Our Design is Simple:

No Fans, No Dust Filters, and No Fan Fuses.

Fanless heat sinks in 4-Pole eSTS

To manage heat while increasing reliability, LayerZero has engineered a completely natural-convection cooling system for all units up to and including 1200 A.

ePODs Power Distribution Units
Mitigates Risk In Critical Facilities

Maximize Data Center Safety with ePODs

LayerZero ePODs (Web-Enabled Power Distribution Systems) serve the functions of providing power distribution and power quality monitoring, while permitting scalability that adapts to growing power needs while maximizing operator safety. ePODs are highly configurable with a variety of static transfer switch, transformer, and power distribution options. The IP-20 Finger-Safe SafePanel™ is inspired by the recommendations of NFPA-70E. Power quality monitoring functionality is built-in, including real-time waveform capture, permitting visibility of your entire power distribution network no matter where you are.

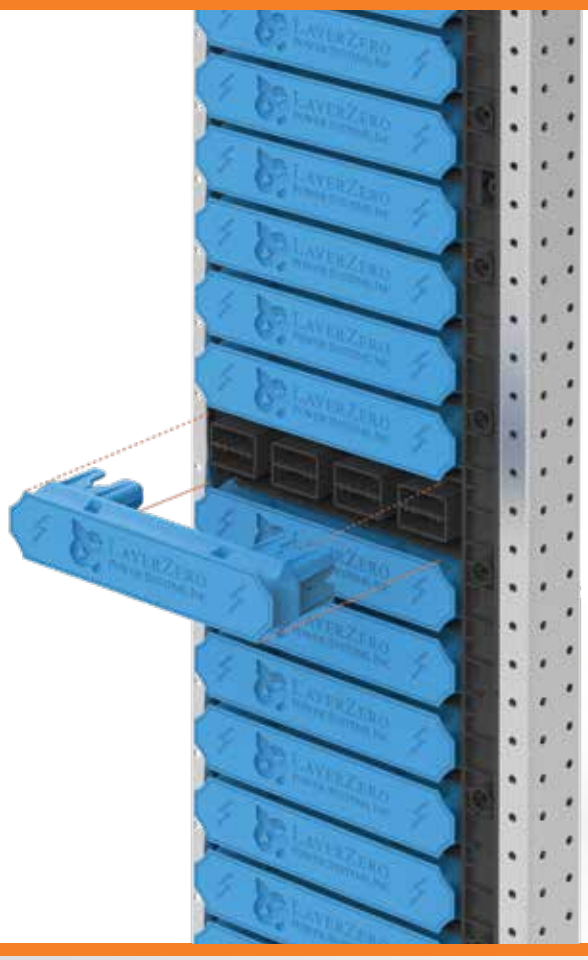
ePODs Finger-Safe Power Distribution Cabinet

The SafePanel Eliminates Exposure To Live Bus
Maximizing Worker Safety

The Risks Have Never Been Higher: LayerZero Helps Reduce Electrical Hazards

Well-experienced facilities' professionals understand that no matter how well a critical power system is planned, there are still risks by any assessment. The immense amount of power utilized in today's critical facilities present a serious danger to workers, and the consequences of an accident can be both physically and financially devastating. Utilizing equipment that is specifically designed to minimize the risk of an electrical accident is not only corporately responsible, it's a smart business decision.

Series 70: ePODs: Type-X SF MCB + Transformer + Distribution PDU

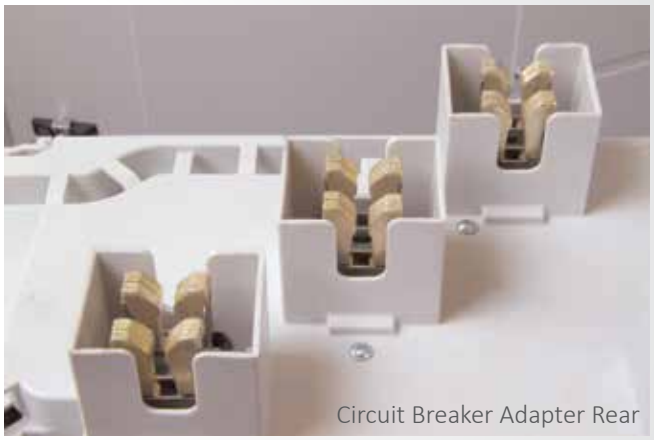


Series 70: ePODs: Type-X SF Subfeed Power Distribution Unit

The NFPA-70E Inspired SafePanel

- Inspired by the reccomendations of NFPA-70E, LayerZero Products Have No Exposed Live Parts
- IP-20 Design is Finger Safe

The 1200 A SafePanel Panel Board Plug-in Receptacles



Recessed-Well Encapsulates CB Before Connection Is Made

Increase Reliability and Safety In Two Ways
With eRPP Remote Power Panels

Reliability Increase #1: Finger Safe

The panel board of the eRPP is designed for maximum operator safety with a fully enclosed current-carrying bus. Branch breakers are inserted into IP-20 (finger-safe) wells and bolted into place using non-conducting screws.

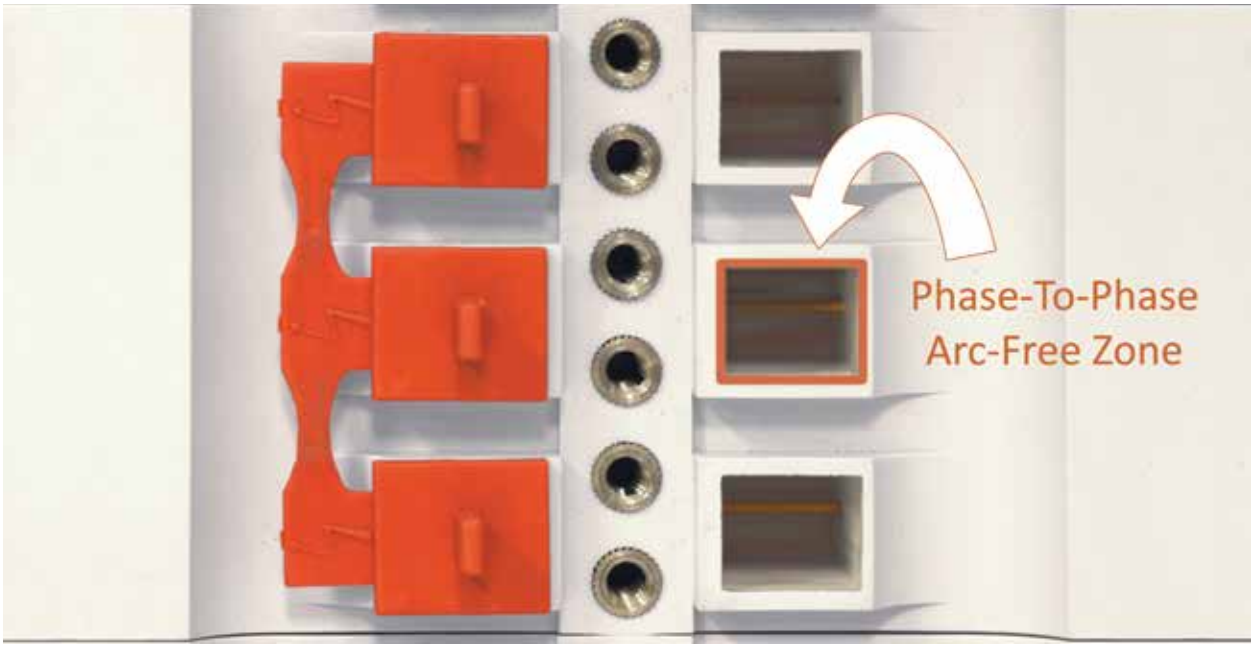
Reliability Increase #2: Selective Trip Coordination

The Series 70 eRPP is supplied with circuit breakers that are tested for selective trip coordination up to 35 kAIC at 208V. In the event of a downstream fault, the branch breaker will always trip before the main breaker under fault conditions up to 35,000 AIC.

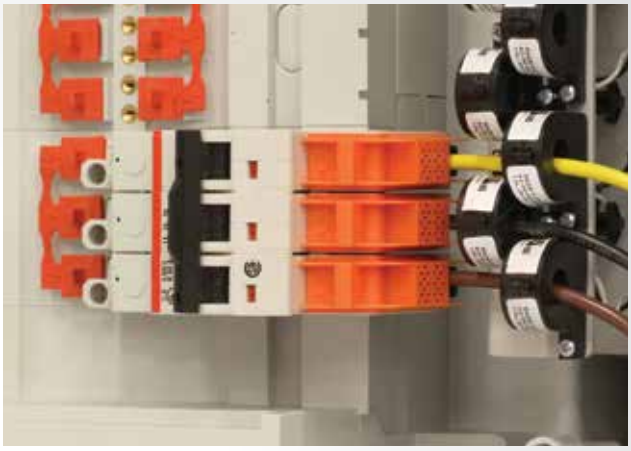
Two Series 70: eRPP-FSR Back-To-Back Power Panels

Series 70: eRPP-SL2 Wall-Mounted 84-Circuit Power Panel

Safely Install Additional Circuit Breakers



Individual Fault-Free Wells and Non-Conducting Bolt-On Receptacles
(Red dust covers removed on right side for enhanced visibility)



Circuit Breaker Terminal Covers

Included on all 42-Circuit SafePanel™ products LayerZero's patented electrically insulated circuit breaker covers are designed to prevent operators from accidentally touching the wires or any electrically activated portion of the breaker inside the load-side opening, mitigating risk, and making the workplace safer.

Series 70: eRDP Wall-Mounted Subfeed Remote Distribution Panel

Open Connectivity: No Proprietary Limitations

Easily Connect To Your DCIM Of Choice

LayerZero power quality monitoring systems utilize “future proof” non-proprietary vendor-neutral protocols, and speaks with all major DCIM software. Our open connectivity packages communicate information for metering, alarms, waveforms, setpoints, event logs, panel setup, and diagnostics. Supported protocols include Modbus, HTTP, SNMP, Bluetooth, and Dry Contacts.

Remotely Access Power Quality Information

If your application is not using a DCIM package, all of our products have built-in web-servers, allowing operators to remotely and securely browse-to and log-in to devices to using a standard web browser to access real-time power quality information.

We Do Power Quality Monitoring
Better Than Everyone Else

Our Products Provide A Complete Power Quality Monitoring Solution

From the UPS Output to the server rack, LayerZero Power Systems provides an aerial perspective into the power quality of your entire power distribution infrastructure. Every product we design and manufacture, Static Transfer Switches, Power Distribution Units, and Remote Power Panels, can be browsed to for remote access to captured waveforms. We make it easy - our Static Transfer Switches automatically email pictures of source transfers, so if an incident occurs, you don't have to look for waveforms.

No More Unsolved Power Quality Mysteries

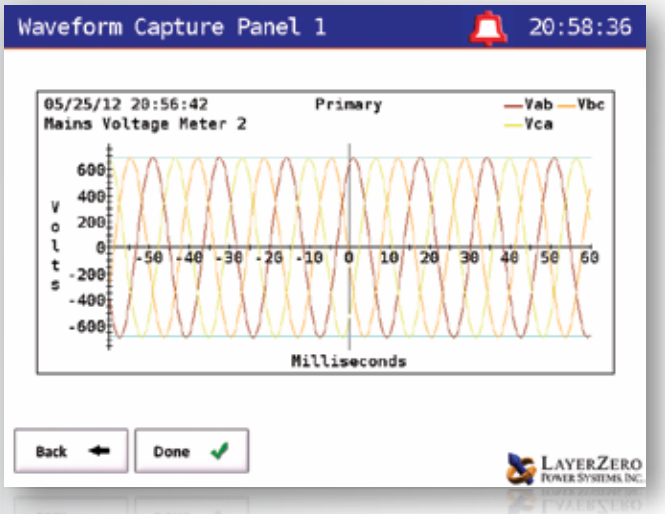
Without a complete power quality monitoring solution, troubleshooting incidents in your data center environment entails relying on partial information from multiple sources. Whether the point-of-failure is a bad UPS output, loose cable, or overloaded breaker, we help identify exactly where and why the incident occurred. Our products provide a complete vendor-neutral "birds eye view" of the power quality throughout your entire facility, helping to facilitate rapid root-cause analysis so that power quality incidents are quickly resolved.

LZ Monitoring & Communications System With Built-In Waveform Capture

The Most Advanced Power Quality Monitoring Solution

LZ SSQM and LZ DPQM from LayerZero is being aware of all activity in your critical power distribution systems. It is an all encompassing monitoring system with local and remote communications options.

- Fingerprint Incidents
- Find The Root Cause Of Events
- Monitor Power Quality In Real-Time
- Waveform Capture On All Devices



Series 70: eRDP-FS Subfeed Remote Distribution Panel

ePanel: Save Space, Increase Operator Safety And Maximize Reliability

ePanel Uses A Wall-Mounted Design To Maximize The Effectiveness Critical Floor Space

Web-enabled Series 70: ePanel Wall-Mounted Distribution Panels save valuable space, while increasing operator safety. ePanel is highly configurable to meet a variety of business goals, and can be installed at the end of server rows or on the walls. The ePanel utilizes the IP-20 finger-safe SafePanel™, requires Category-0 PPE, provides selective trip coordination to 35 kAIC, enables Bluetooth connectivity, contains waveform capture on every breaker, with Modbus/TCP, SNMP, HTTP web browsing protocols supported.

ePanel-2 84-Circuit Wall-Mounted 84-Circuit Power Panel

ePanel-SL1 42-Circuit Wall-Mounted 42-Circuit Power Panel


LayerZero
Power Systems, Inc.

Be Ready For *Ultra* High-Density Requirements With ePanel-HD High-Density RPP

ePanel-HD Ensures Your Power Distribution Infrastructure Is Ready For Ultra High-Density

Our Series 70 ePanel-HD is designed for applications that require higher kW capacity from three phase branch breakers. NFPA-70E operator safety is built-in. The IP-20 (finger-safe) modular latticework allows for the addition of 15 A - 100 A three-pole circuit breakers without exposure to live bus provisioning excess of 30kW per breaker. Standard features include: Guaranteed selective trip coordination, Bluetooth, waveform capture Modbus/TCP, SNMP, HTTP protocols supported.

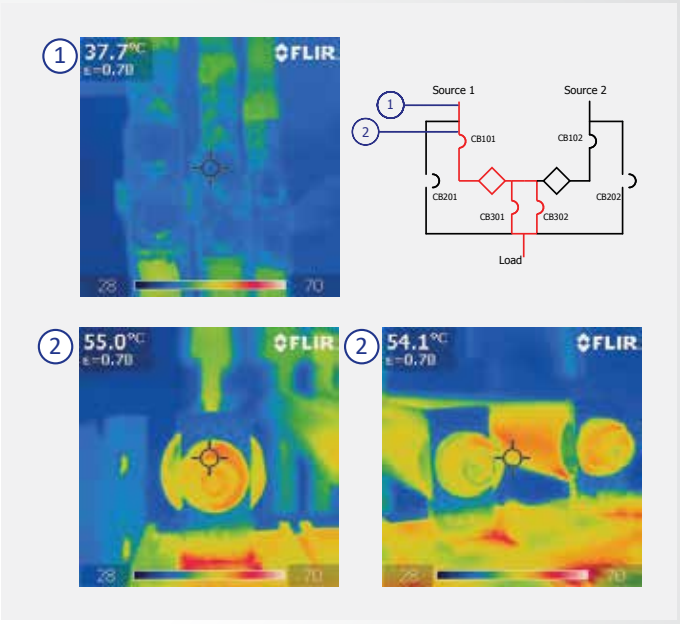
- 400 A, 800 A
- 100 kAIC @ 240 VAC
- 65 kAIC @ 480 VAC

Series 70: ePanel-HD2 High-Density Wall-Mounted Power Panel


High-Density

Safely Perform Preventive Maintenance With InSight™ Infrared Scan Portholes

IR Portholes in eSTS
(Door and side panel hidden for visibility)



IR Scan *All* Bolted Connections
With Dead Front Doors Closed

All Circuit Breakers Are 100% Tested by LayerZero

All CBs Tested per NETA standards

All circuit breakers included in products manufactured by LayerZero are 100% primary injection tested per NETA standards to ensure proper operation and maximum reliability.

Testing reports are readily available in LayerZero's eBOSS (Back Office System Software) system for future reference.

Highly-Trained & LayerZero-Certified

When you invest in a LayerZero product, you have complete confidence in your purchase, and also in the service that stands behind it. Our Customer Service Engineers perform emergency service, preventive maintenance, and non-preventive maintenance (startups, commissioning, standby, and customer-requested service, such as software upgrades). LayerZero Customer Service efforts are held to the same high standards that are set for power reliability solutions. We dedicate our service and support to maximizing your uptime.

Project Management Support

LayerZero is committed to working with the customer project team throughout the lifecycle of the project: from document submittals to factory testing to commissioning and beyond. Our planning process uses information from eBOSS, our web-based back-office system, ensuring that process data is available in real-time.

Enhanced Visibility to Your Infrastructure

In critical facilities, maintaining maximum uptime is the highest priority. LayerZero Power Systems products provide a variety of innovations and technologies designed to provide power reliability that is second to none.

LayerZero Power Distribution Units (ePODs) provide reliable power distribution for both raised and non-raised floor applications. LayerZero Power Systems' power quality monitoring technologies provide visibility from the static transfer switch down to the branch circuit level, including remotely accessible real-time waveform capture.

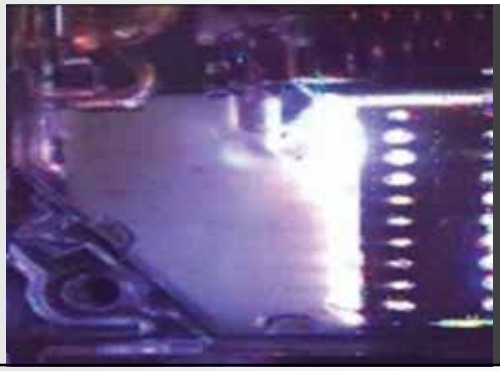
Non-proprietary compatibility with all major DCIM systems ensures a quick response to power-related incidents.

Series 70 ePODs: Type-X 500 kVA Power Distribution Unit

Selective Trip Coordination

True mission critical performance is achieved when distribution products are designed for selectivity. All Power Panel products are selective trip coordinated.

The traditional "zero-crossing" branch circuit breaker may not be suited for use with today's high-density distribution transformers (larger than 300 kVa). Zero-crossing circuit breakers take over one half of an electrical cycle to clear a fault. This increases the risk of upstream feeder breakers tripping before the branch breaker can open. High-speed current limiting branch circuit breakers used in LayerZero products provide fault-interruption in less than one quarter of an electrical cycle.



Selective Trip Coordination in Action

- Unequal pressure on each side of the arc causes the plasma wave to rotate away from the contacts.
- An arc-runner divides the plasma wave into 12 chutes.
- The withstand requirement is greatly reduced.

The ISO/OSI Layered Model of Network Architecture

The Open System Interconnection (OSI) reference model conceptualizes the means by which information from an application in one computer travels through a network to an application in another computer in an adjacent internetwork. It is comprised of seven layers (layers 1 through 7), each specifying particular network functions. The model was developed by the International Standards Organization (ISO), and it is now considered the primary architectural model for intercomputer communications.

LayerZero Power Systems was founded in 2001 on the principle that the internetwork needs to be built on a robust foundation layer of power system infrastructure. The so-called “zero-eth” layer of the ISO/OSI reference model needs to be comprised of ultimately reliable, safe, information-centric and a highly connected set of power distribution products and processes.

LayerZero is the Foundation.

Series 70 ePODs: Type-S Secondary-Side Static Transfer Switch + Power Distribution Unit

Built From The Ground Up
The History Of LayerZero

Every Great Company Has It's Story. Ours Starts With Hard Work, Determination, and Self-Belief.
Founded in 2001, LayerZero Power Systems, Inc. was built on the belief of designing power quality products that were highly reliable, safe to operate, well connected, with advanced power quality monitoring capabilities. From humble beginnings, our company has assembled a team of the most talented engineers; established excellent connected processes; and developed state-of-the-art power conditioning solutions designated specifically for the most discerning customers.

LayerZero expanded capabilities by establishing a modern, automated manufacturing facility located in 2012. If you are looking for the safest and most reliable power quality products available today - they're right here.

Series 70 ePODs: Type-X Power Distribution Unit

Everything We Do Is To Maximize Reliability

As a LayerZero customer you will come to expect an extraordinarily high level of product reliability; information centricity and connectivity that will allow you to provide equally high service levels to your customers by keeping the mission critical process running at all times. Maximization of uptime is our highest priority, and every detail of LayerZero products were designed with this core-mission in mind.

LayerZero Products Are Technologically Advanced

We utilize a model-to-manufacturing design process that has allowed our product configurations to be highly configurable, exceptionally reliable, and quick-to-market. Our products are manufactured utilizing advanced processes that are efficient, cost-effective, and precise. The uncompromising quality and meritorious attention-to-detail of all of our products stands as the pinnacle of the power quality industry.

We Are Innovators In The Power Quality Industry

LayerZero Power Systems is committed to designing the most reliable power distribution products in the mission-critical power industry. LayerZero has made a variety of innovations and advancements that have forever changed the expectations of power reliability, including Triple Modular Redundancy, Dynamic Phase Compensation for Inrush Mitigation, Black-Box Forensics for remote diagnosis, and Real-Time Waveform Capture.

The LayerZero Difference

We believe in delivering superior customer service, providing flexible and responsive service to our customers, and facilitating open communication through our eBOSS web portal. LayerZero's company philosophy supports social responsibility, acting as an environmental steward, and engaging in good corporate citizenship.

With LayerZero Power Systems, you can expect higher reliability, NFPA-70E inspired safety, open connectivity, and power quality monitoring, backed by world-class support.

Series 70: eRPP Remote Power Panel

Quality In Manufacturing

All LayerZero products are designed, built, and tested at the LayerZero Power Systems world headquarters and manufacturing facility in Aurora, Ohio, USA.

Please contact your LayerZero sales representative to schedule a factory tour of the LayerZero manufacturing facility.

LayerZero Power Systems Manufacturing Facility

Learn more at www.LayerZero.com

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