

VACUUM PROTECTION UPS FOR ION PUMP SYSTEMS

UPS-IP SERIES

**LONG-DURATION BACKUP
POWER THAT PROTECTS
VACUUM INTEGRITY
DURING OUTAGES,
TRANSPORT AND
SYSTEM TRANSFERS**

UPS-IP advantages

- Maintains vacuum during power outages
- Long runtime for overnight protection and transport
- Compact 2U rack-mount integration
- Available in 110 V and 230 V versions
- Optimized specifically for ion pump system loads
- Optional mobile rack case and RPS mounting configurations
- Reduces downtime and risk of delays

Compatibility

RPS30 Service Station

Ion Pump Power Supplies (IPPS)

Scandiflash FXR tube systems

Portable rack case systems

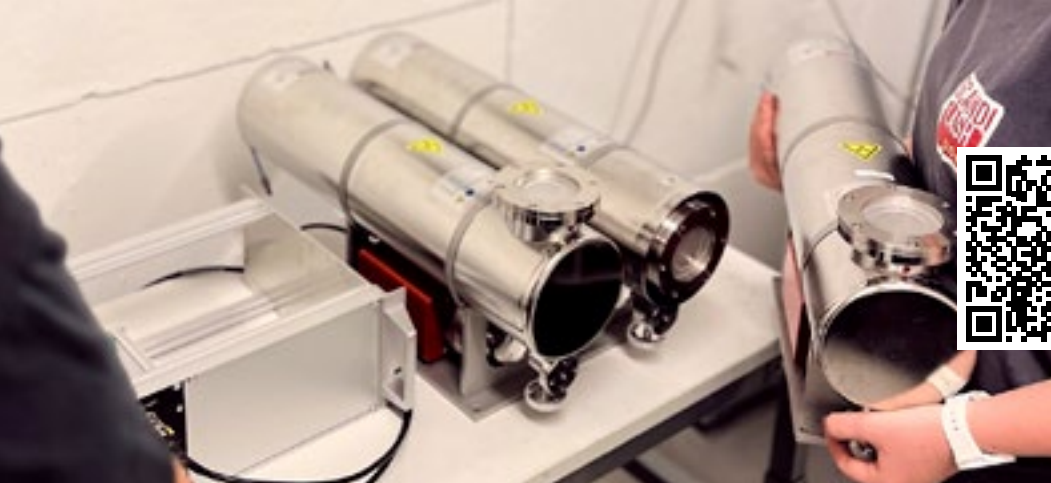
Modularity

Designed for seamless integration with the RPS30 Service Station and Scandiflash ion pump infrastructure.



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Extending the RPS30 Platform

The UPS-IP Series extends the capabilities of the RPS30 Service Station by adding long-duration backup power for ion pump systems. Together, the systems provide a complete solution for vacuum maintenance, transport protection, service operations, and reliable X-ray tube readiness. The UPS-IP integrates naturally into the Scandiflash ecosystem, supporting both fixed laboratory installations and portable field configurations.

Protecting Vacuum Integrity During Power Loss and Transport

The UPS-IP Series is designed to solve one of the most critical challenges in ion pump-based X-ray systems — maintaining vacuum integrity when mains power is unavailable.

Ion pumps must remain energized to preserve the vacuum inside the X-ray tube. During extended outages, overnight shut-downs, or transport between facilities, loss of power allows the vacuum to slowly degrade. When power eventually returns, the vacuum level may no longer be within a safe operating range.

In older systems, the ion pump may even attempt to restart under unsafe vacuum conditions, potentially damaging or destroying the pump. The UPS-IP eliminates this risk entirely.

With long-duration runtime capability, the UPS-IP continuously powers the ion pump system throughout outages and transfers, ensuring the vacuum remains stable until mains power is restored.

The result is improved system reliability, reduced downtime, and protection of critical X-ray components.

Reliable Protection During Transport

Transporting X-ray tubes or vacuum assemblies between facilities often means operating without mains power for extended periods.

Without ion pump power, the vacuum can degrade — potentially requiring recovery procedures or rendering the tube unusable.

The UPS-IP maintains continuous ion pump operation throughout transport and relocation, preserving vacuum stability until the system is reinstalled at the new site. This reduces risk, prevents costly failures, and eliminates unnecessary conditioning delays.

More than a UPS

The UPS-IP Series is more than a backup power supply — it is a dedicated vacuum protection solution engineered specifically for real-world X-ray and vacuum system applications.

By maintaining stable vacuum conditions during outages, transfers and transport, the UPS-IP helps ensure reliable operation, protects critical components, and keeps systems ready when they are needed most.

Runtime Performance

The UPS-IP is optimized specifically for ion pump operating profiles and delivers long backup runtimes for extended protection.

Typical Runtime	
1 IPPS with splitter (up to 4 X-ray tubes)	10 hours
2 IPPS with splitter (up to 8 X-ray tubes)	5 hours

Electrical Variants

The UPS-IP Series is available in two electrical configurations:

Input / Output Configuration
230 V AC input / 230 V AC output
110 V AC input / 110 V AC output

Both versions provide identical runtime and performance.

THREE CONFIGURATIONS

STANDARD:

Compact 2U Rack Integration

The standard UPS-IP configuration is supplied as a compact 2U, 19" rack-mount unit designed for direct installation into existing system racks.

This integrated design simplifies installation while minimizing system footprint.

Key advantages

- Fits into existing racks
- Simplified cable routing and power distribution
- Direct integration with IPPS units and control electronics
- Ideal for OEM systems and permanent installations

OPTION A:

Portable Rack case Integration

The UPS-IP can be integrated into a rugged portable rack case together with up to two Ion Pump Power Supplies.

This creates a self-contained mobile vacuum support solution ideal for:

- Field operations
- Temporary installations
- Service and maintenance work
- Facilities without permanent rack infrastructure

OPTION B:

RPS30 Service Station Integration

The UPS-IP may be mounted directly onto the RPS30 Service Station platform, creating a unified vacuum support solution that combines roughing pump functionality with long-duration ion pump backup power.

This integrated configuration reduces total footprint, simplifies installation, and improves portability for service, transport, and temporary system deployments.