



SYSTEM HINTS NEWSLETTER

OCTOBER 2025

MONTHLY SYSTEM HINTS NEWSLETTER

The Honeywell Information, News and Tips (HINTS) monthly newsletter covers timely issues ranging from Honeywell Users Group and cybersecurity, to Priority Notifications, product releases and updates and more.

To access and subscribe to HINTS newsletter go to

<https://process.honeywell.com/us/en/support/support-newsletters>

where you can consult previous releases and be notified about latest publication (after you are subscribed to).

Contents

Honeywell Users Group (HUG) registration is open!	3
Services securing tomorrow workshop at EMEA HUG 2025	5
Honeywell myProcess Customer How-To Guide	6
Global Honeywell Academy Training Solutions	7
PRODUCTS HIGHLIGHTS	12
Advanced Monitoring and Incident Response (Part of The Honeywell OT SOC) Threat Detection Framework Update	13
Insights & Cyber Watch 4.1.1 Now Available!	14
Honeywell Now Supports Nutanix as Part of Experion PKS	16
Honeywell Production Accounting & Reconciliation (PAR)	17
SUPPORT CYCLE	20
VMWare Support Update	21
End of Sale Announcement for 8C-PCNT03 C300 controller variant for Experion LX/PlantCruise	22
Reminder - Coax LCN/UCN Phase-Out, December 31, 2025	23
PREVENTIVE MAINTENANCE TIPS	24
Safety Manager System Power Supply FC-PSU-xxxxxx	24
Power Systems for PM / APM / HPM / EHPM / EHPMX / C300PM, Remote I/O, and PMIO	27
Power Systems for PM/APM/HPM, Remote I/O, and PMIO	32
Product Revisions and Support Status	37

Honeywell Users Group (HUG) registration is open!

2025 HONEYWELL USERS GROUP EMPOWERING CHANGE SECURING TOMORROW

World Forum Convention Center,
The Hague, The Netherlands
November 11-13



We welcome you to register for the 2025 Honeywell Users Group (HUG) Europe, Middle East and Africa conference.

Registration fees are listed [here](#), please [visit the website](#).

On November 11-13 Honeywell Process Solutions will be hosting its 33rd HUG EMEA.

The conference will take place at: The Hague World Forum Convention Center, The Netherlands!

NOTE: November 10 is reserved for optional customer training sessions, workshops, and Customer Advisory Board meetings.

BEFORE you register, please check if your company has a valid Honeywell Process Solutions SESP - Training Match Fund (TMF), or an A360 contract containing HUG passes. If so, you will need to contact your Honeywell account manager first, to verify if your contracted funds can be used.

If this is the case your Honeywell account manager will arrange personalized discount codes for you/your peers, for use on the HUG registration payment page.

In all other cases, the HUG conference registration fee requires payment by credit card.

[REGISTER NOW](#)

See [the 2025 HUG highlights brochure](#), we will share the detailed agenda closer to date.

Registered attendees will use the Honeywell Global Events App to navigate the conference.

We look forward to seeing you in The Hague!

Best regards,

The HUG Steering Committee and Organizational Team

Follow us on LinkedIn: #HPSHUG25 and [Honeywell Users Group](#)

Thank you: 2025 HUG EMEA Sponsors



SILVER



Services securing tomorrow workshop at EMEA HUG 2025

2025 HONEYWELL USERS GROUP EMPOWERING CHANGE SECURING TOMORROW

World Forum Convention Center,
The Hague, The Netherlands
November 11-13



On November 11-13 Honeywell Process Solutions will be hosting its 33rd HUG EMEA conference.

We invite you to join us for an exclusive workshop on 'Services Securing Tomorrow' at 2025 HUG EMEA to explore strategies that will enable you to digitize your maintenance and service operations, preparing you for the future. This is an opportunity to discover innovative solutions, learn best practices, and gain actionable insights that will propel your organization forward. Don't miss the chance to unlock the full potential of Honeywell's connected services solutions, which empower change and secure a successful tomorrow.

Workshop Agenda:

Honeywell Vision on Services for the future

- Digital Prime Ecosystem to support process control changes and system modification
- Gen AI solutions to increase Operation Efficiency
- Enabled Services to optimize operations
- Digital Twins to support robust maintenance
- Gen AI system to support field tasks and enhance efficiency of maintenance activities

Break out session to discuss customer challenges of digitization of ICS services

- Moving from Proactive to Predictive
- Remote maintenance and operation
- Gen AI tools in daily operation and decision making



DATE

November 13, 2025



TIME

8:15 CET



LOCATION

Oceania Foyer
The Hague World Forum
Convention Center,
The Netherlands.

[REGISTER NOW](#)

[Reserve your spot today!](#)

Honeywell myProcess Customer How-To Guide

HONEYWELL MYPROCESS CUSTOMER HOW TO GUIDE

User Guide

Dear Valued Customers,

The new [myProcess Customer How-To Guide](#) offers a streamlined overview of Honeywell Process Solutions eCommerce portal, helping users manage accounts, place orders, and access essential tools. It walks new users through registration and activation, while showing existing users how to log in and reset passwords. Navigation is made simple with customizable Quicklinks and a central menu that connects users to order status, quotes, service contracts, and more.

The guide covers Quick Order features, cart management, entitlements, and checkout steps including payment and shipping. Our guide also explains how to create quotes, view quote history, and explore Honeywell's training catalog and course schedule. Users can manage service contracts, proposals, invoices, and access technical publications and knowledge articles. The guide wraps up with support resources and case history tools, helping users stay informed and in control of their operations.

Please contact HPSDigital@Honeywell.com for training requests and online assistance.

To view our guide, please click here: [myProcess Customer How-To Guide](#)

Warm regards,

Global eCommerce Team



Global Honeywell Academy Training Solutions

October 2025

Welcome to the October edition of “Global Honeywell Academy Training Solutions”.

As always, we are excited to share the latest updates, insights, and innovations from Honeywell that we believe will add value to you.

Our goal is to provide you with the most current and relevant information to help you stay ahead in your field. This month's edition is packed with exciting content tailored to keep you informed and inspired.

Below, you will find the latest updates:

1. [Global-Honeywell-Academy-Year-End-Promotions](#)

Honeywell Academy is very pleased to announce the year-end promotions to meet your training needs. This is a great opportunity to upgrade your skills, gain knowledge, improve productivity, and meet your training goals with cost savings.

Honeywell Academy offers various training programs focused on developing workforce competency in automation and process control, with a particular emphasis on Honeywell's technologies.

Promotions:

- ✓ 15% discount on all standard published open enrollment courses (Asynchronous Training (AT), Instructor-Led Training (ILT), and Virtual Instructor-Led Training (VILT)), Subscription Services (Express, Standard, Premium), and Honeywell Automation and Cybersecurity Certifications*
- ✓ Bring A Colleague with a 30% discount on standard published open enrollment courses (AT, ILT, VILT) for two or more participants from same site*
- ✓ Free Training Needs Assessment (TNA) for Experion PKS, Safety Manager, and Safety Manager SC Engineers:
 - a. All SESP and A360 Customers, Limit to 30 assessments per site
 - b. All Honeywell in-center Instructor-Led Training (ILT) Participants

Enroll Now! Limited seats available.

Terms and conditions:

- Use a credit card or same purchase order and consume training courses within 2025.
- Offered discount CANNOT be combined with Training Match Fund (TMF) or any other discounts (Master Purchasing Agreement (MPA)/Strategic Business Agreement (SBA) or other negotiated contract discounts will not apply).
- Enrollment must be confirmed with payment before December 30, 2025.
- This offer expires on December 30, 2025.
- This offering will not be applied to e-commerce enrollment

2. New Experion Course “Experion PKS: Fundamentals - ELCN Implementation”

Introducing new “Experion Course “Experion PKS: Fundamentals - ELCN Implementation”. This course provides implementation Engineers the skills needed to configure an Experian LCN (ELCN) System that includes an NCF as well as initializing an ELCN History Module (HM). This course also includes and introduction to ELCN System Status Displays, and configuration tasks such as building an Area Database, building History Groups, and building basic custom displays.

Course Number: EXP-1031

Course Duration: 5 Days

Prerequisite Course (s): None

Course Languages: English

Course Delivery Options

- Instructor-Led Training (ILT)
- Virtual Instructor-Led Training (VILT)

Course Objectives

- Understand LCN-UCN architecture
- Understand ELCN-EUCN architecture
- Native Window process and desktop operations
- ELCN System Status displays
- Create an Emulated Disk as well as use the Command Processor
- Use TPS Configuration Utility
- Build an NCF
- Configure GUS buttons
- Build an Area Database
- ELCN History Module Introduction and Initialization
- Build TPS history groups
- Use GUS Basic Display Builder or Picture Editor
- Build TPS/HPM Alarm Groups

3. Certification Program in Process Control Techniques



We are excited to announce a joint "**Certification Program in Process Control Techniques**" by the School of Engineering, **Newcastle University**, and **Honeywell Process Solutions**.

Newcastle University, a founding member of the Russell Group and a Global Top 110 university (QS World University Rankings 2024), is dedicated to excellence, creativity, and innovation.

This two-week intensive program is designed for Process engineers, Plant operators, Plant managers, Control system engineers, Students, New Hires, and Industry professionals seeking career advancement. It will develop awareness of measurement principles and instrument design features, with hands-on experience on the Honeywell C300 platform.

Program Details

Location: School of Engineering, Newcastle University, Newcastle upon Tyne, United Kingdom

Duration: 2 weeks

Date: 1st to 12th Dec 2025

Objectives:

- ✓ Understand Distributed Control
- ✓ Build Control Strategies
- ✓ Process Control Basics
- ✓ Process Control Labs (hands-on)

For any additional information write to HPS-Training-EMEA@Honeywell.com

4. Introducing new and upcoming courses at Houston and Virtual Instructor-Led Training (VILT).

Honeywell Academy is pleased to offer the following new and upcoming courses. Please request enrolment as soon as possible as limited seats are available.

1. EXP-1025 – Experion PKS: Advanced - C300 Process Control Techniques Implementation
 - Course participants will thoroughly understand various algorithms in C300 Controller and their applications in real-life situations.
 - Training Dates: December 8 – 11, 2025
 - Instructor-Led Training at Houston, TX facility
2. HAPC-0001-VILT - Honeywell Advanced Process Control: Fundamentals - Process Controller Implementation
 - Course participants will learn the multivariable predictive control design and implementation using Process Controller software.
 - Training Dates: January 12 – 16, 2025
 - Virtual Instructor-Led Training (VILT)

3. EXP-1026 - Experion PKS: Fundamentals - Control HIVE Implementation

- This course covers the installation and configuration of Experion PKS Control HIVE and IO HIVE hardware and software.
- Training Dates: February 16 - 18, 2025
- Instructor-Led Training at Houston, TX facility

[Click here](#) to visit our website for all scheduled courses.

Thank you for being a part of our community, and we look forward to your feedback and engagement.

For any additional information or any specific inquiries, do not hesitate to reach out to your account manager directly or write to the regional contacts below.

Regional Contacts:

- APAC Pole Leader: Mini Goyal - Mini.Goyal@Honeywell.com
- EMEA Pole Leader: Joao Mestre - Joao.Mestre@Honeywell.com
- AMER Pole Leader: Nerio Gutierrez - Nerio.Gutierrez@Honeywell.com

We are committed to addressing any inquiries you may have and ensuring a smooth integration of our innovative solution into your business operations.

Warm regards,

Honeywell Academy

PRODUCTS HIGHLIGHTS



Advanced Monitoring and Incident Response (Part of The Honeywell OT SOC)

Threat Detection Framework Update

Honeywell's motto is staying ahead of the curve, not just keeping up. In the ever-changing world of cyber threats, this means constantly fine-tuning our defenses to help your operational technology (OT) environment(s) remain secure.

Our team has recently started to update our threat detection framework to align with the latest update of the MITRE ATT&CK framework for ICS. This isn't just a simple update; we've used advanced analysis and validation tools to enhance our ability to detect threats, improve visibility, and build resilience against both known and newly emerging attack vectors.

This enhancement is designed to make your security even stronger:

- **Proactive Threat Detection:** We've updated part of our detection rules to identify new threat behaviors and tactics in near-real time, so we can stop threats before they cause an issue.
- **Enhanced Visibility:** The new framework gives us a deeper look into your activity patterns, allowing our analysts to spot and investigate potential risks more effectively.
- **Adaptable & Future-Ready:** This update is part of our commitment to continuous improvement. We have built a framework that can quickly adapt to new threats without disrupting your operations.

What to expect:

- **No Action Required:** You don't need to do a thing. This rollout is designed to be seamless and requires no action on your part.
- **Continuous Rollout:** The new framework will be introduced in phases to help ensure a smooth transition while maintaining full coverage of your existing protections.
- **Zero Impact on Performance:** The new components will complement the current security layers and are designed not to disrupt your business as usual.

Your security is our top priority. We'll keep you informed as we roll out these updates and continue to innovate to protect your critical systems.

We appreciate your continued trust in Honeywell Cybersecurity Solutions to safeguard your environment.

Should you have any questions or require additional details, please don't hesitate to contact our dedicated AMIR support team at amirsupport@honey.com or please submit a [Support Request](#) for AMIR, ensuring that the appropriate Product Family and Product options are selected. To initiate a support request, kindly refer to the [How to Request Support from AMIR](#) procedure.

Insights & Cyber Watch 4.1.1 Now Available!

We're excited to announce the release of Cyber Insights and Cyber Watch version 4.1.1, which is now live in production!

Release Overview

This minor release delivers a focused set of new features, bug fixes, and security patches, aligned with our strategic product swim lanes: Asset Visibility, Threat Detection, and Market Expansion.

What's New in 4.1.1

New Features

- Addition of Active Asset Discovery
 - Active-Only Mode Licensing
 - Mixed Mode Support for AAD and PAD
- Expanded Protocol Support
 - Active Polling for 3rd-Party DCS Protocols
- Improved Asset Intelligence
 - Editable Protocol Names
 - SNMP Custom OID Support for IoT Cameras
 - Noisy Host Alerting
 - Cisco EOL Detection
 - Asset Custom Fields and Filters

Minor Updates

- Threat Intelligence
 - Integration with Google Threat Intel via GARD
- Data Import Enhancements
 - Siemens Project File Import
 - JSON-Based Asset Data Import

Cyber Insights is a cybersecurity solution purpose-built for OT environments. Honeywell Cyber Insights is designed to provide asset visibility, near real-time threat detection, vulnerability management, and actionable insights across OT systems.

Cyber Insights is designed to be an extension of the Experion control system and is currently the only qualified software tested to monitor Fault Tolerant Ethernet network and CDA protocol. Additionally, Cyber Insights is the only network threat detection solution certified for use with Experion that comes with technical support from our Honeywell Global Technical Assistance Centre (GTAC). We recommend customers strongly consider installing Cyber Insights on their Experion and Safety Manager systems to help customers improve their current risk profile that their process control systems are facing globally.

More details about Cyber Insights can be found in this [Product Information Note](#)

At this time, third-party OT network monitoring cyber security applications have not successfully met our quality assurance and system reliability standards. As such, Honeywell has not certified other OT cyber security applications for use with Experion PKS or Safety Manager and active polling. Our testing process identified interactions which could affect the proper operation of the control system and in some cases caused systemwide reliability issues. Based on our analysis, we previously issued a notification regarding the use of non-certified devices connecting to the Fault Tolerant Ethernet span port.

- Active Polling: designed for polling Windows and network device attributes, which is the only tested & qualified solution for Honeywell Experion. The active polling approach is designed to reduce false positives and provides additional context around asset exposure to risk.
- Network Traffic Management: Designed to backhaul traffic across the Honeywell FTE network without the need for extra cabling, reducing infrastructure costs and simplifying network management.
- Enriched with Google Threat Intel: Designed to enhance threat detection and response capabilities by leveraging advanced analytics and security operations expertise.
- Role-based Access Control in Cyber Watch: Ensure only authorized personnel access critical systems.
- Customer Benefits:
 - Cost Savings: Reduced need for additional cabling.
 - Enhanced Threat Detection: Advanced threat intelligence and response.
 - Unified Security View: Comprehensive security event monitoring.
 - Active Polling providing a more detailed view of OT asset attributes.
 - Improved Access Control: Enhanced security through role-based access

For more information, visit Honeywell Cyber Insights and Cyber Watch at <https://process.honeywell.com/us/en/products/ot-cybersecurity/cyber-insights>.

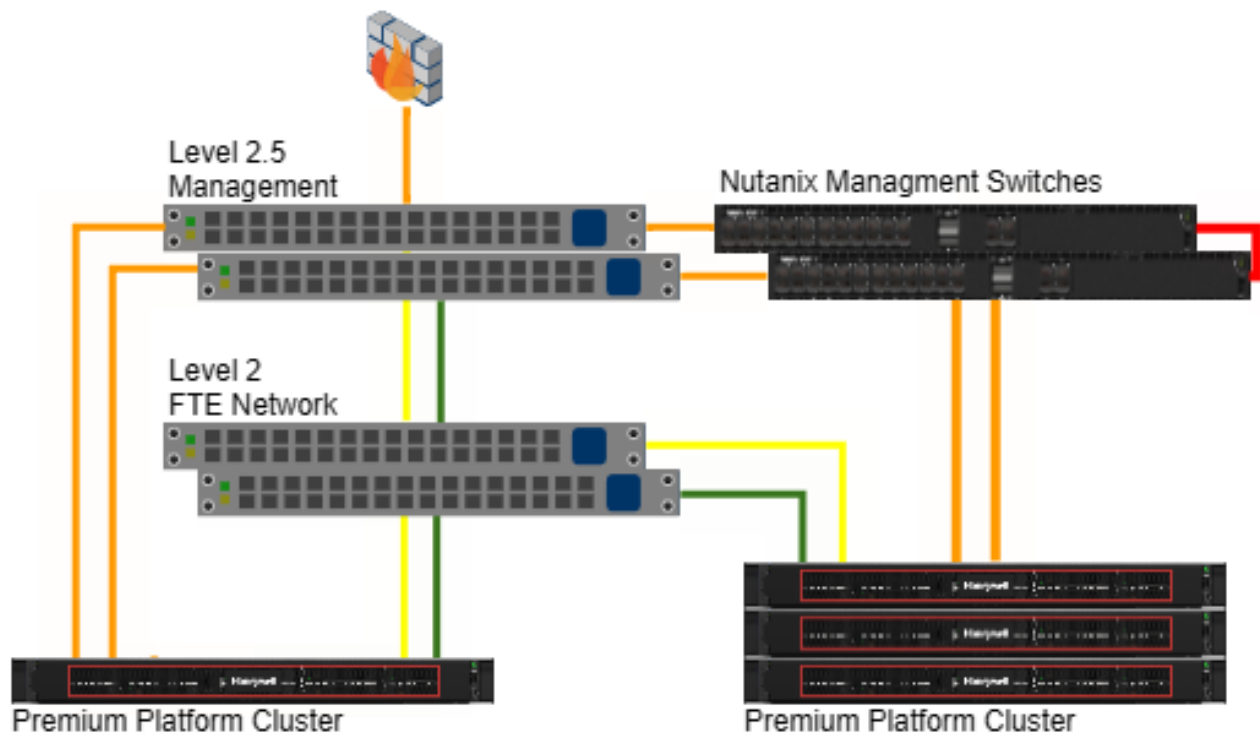
Honeywell Now Supports Nutanix as Part of Experion PKS

Honeywell now supports Nutanix as part of our industrial control solutions, marking a significant step forward in modernizing industrial automation infrastructure.

By integrating Nutanix's enterprise-grade virtualization and hyperconverged capabilities, Honeywell is enhancing the scalability, resilience, and manageability of control systems across manufacturing, energy, and critical infrastructure sectors. Honeywell's Premium Platform for Nutanix provides key features such as automatic failover, transparent upgrades and maintenance, and live migrations in an easy to install, easy to support appliance package.

Honeywell's Premium Platform for Nutanix is available in two server configurations and supports standard cluster and single cluster designs, and both per-core and per-VM licensing models are available to meet the needs of all system sizes.

The EVIR600.1 release supports Experion PKS R530. Please refer to the latest [HPS Virtualization Specification](#) for detailed information.



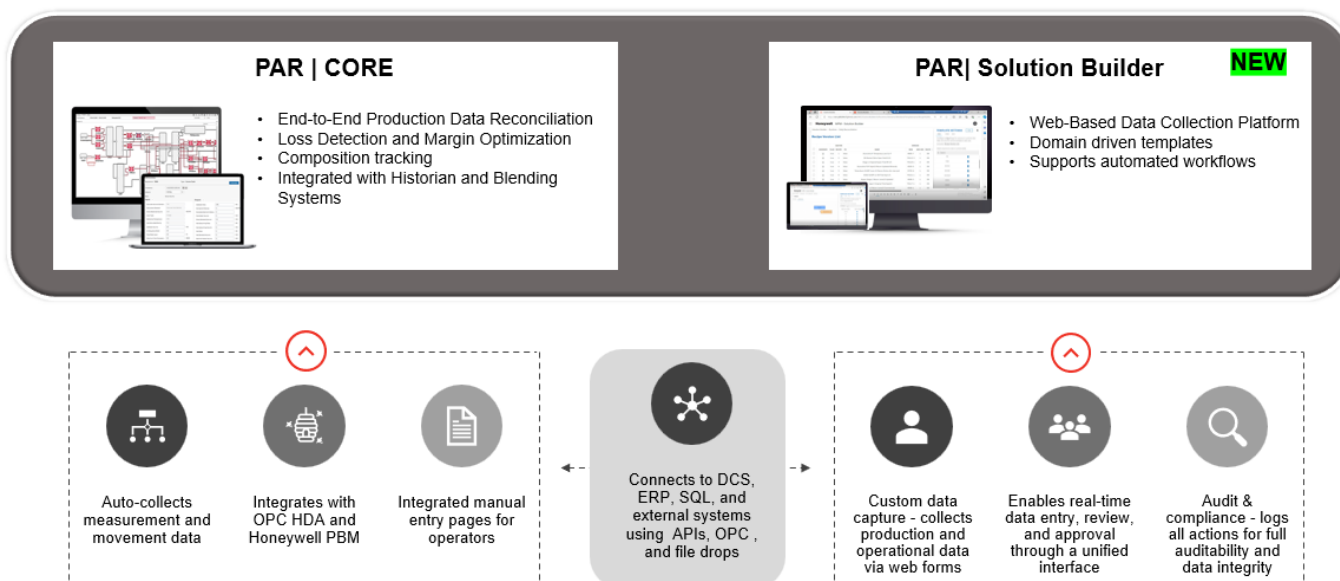
Premium Platform for Nutanix Topology – Standard and Single-Node Clusters

Honeywell Production Accounting & Reconciliation (PAR)

We are pleased to announce that the Production Accounting & Reconciliation R3.1.0 has been released on 9th October 2025.

Production Accounting and Reconciliation is a state-of-the-art production accounting solution. Production accounting is the process of measuring, validating, reconciling, and publishing accurate and reliable production data (in terms of flows, inventories, and movements) by balancing a plant's (or unit's) inputs with its outputs based on mass or volume.

Solution Builder is a next-generation module in Honeywell Production Management offering, built to modernize and unify production data workflows. It streamlines data collection, transformation, and reporting - delivering real-time insights and industry-specific automation. By replacing fragmented Excel with structured, auditable systems, it enhances data integrity, reduces manual effort, and supports scalable, compliant operations.



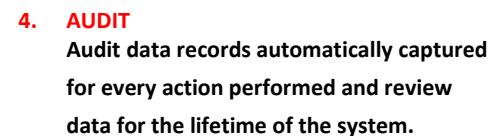
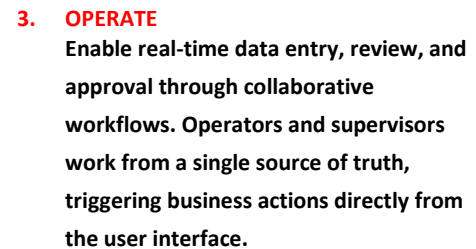
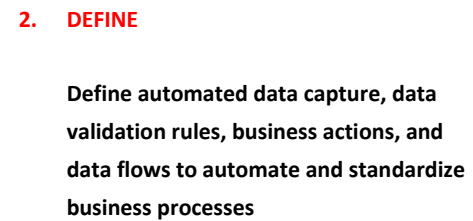
Honeywell Confidential - © 2025 by Honeywell International Inc. All rights reserved.

Honeywell

Release highlights –

1. Solution Builder is a new module within PAR that helps to digitize manual production data entry, giving fully configurable data collection with auditing. This is essential to reduce errors and ensure accurate production and inventory numbers.
2. Tank Calculator API helps to calculate hydrocarbon inventory using industry standard calculations (American Petroleum Institute & American Society for Testing & Measurement) & tank strapping tables.
3. Reduce time to close balances using the upgrades to Adhoc movements.
4. Validate data integrity using exported audit reports.

1. DESIGN
Design and build business specific data structures to collect, and track key production and operational data store



Key Feature of R3.1.0 – Tank Calculator API

Tank Calculator API to invoke PAR tank calculations to calculate volume and other from level measurements while accounting for temperature, shell material, and product effects. The API allows any third-party application to compute volume and dip differences from level measurements—factoring in temperature, volume, and product effects. Sample screenshot:

TANK ATTRIBUTES	CURRENT VALUE	DESIRED VALUES	DIFFERENCE
Attribute 1	33	30	33
Attribute 2	20	60	40
Attribute 3	30	60	30
Attribute 4	60	120	60
Attribute 5	10	150	140
Attribute 6	60	180	120
Attribute 7	70	210	140
Attribute 8	60	240	180
Attribute 9	90	270	180
Attribute 10	130	300	170
Attribute 11	130	330	200
Attribute 12	130	360	230
Attribute 13	130	390	260
Attribute 14	140	420	280

Other features in R3.1.0 for ease in accounting -

1. Adhoc Movements

- PAR 310 lets users capture AdHoc movements by reading measurements and density/component fraction values directly from historian tags, rather than manual entry.
- PAR 310 allows users to select density values based on the material flowing through the route rather than the pre-configured values

2. Automatic Writeback for IM Models

- PAR 310 now automatically writes daily inventory data to historian tags for Inventory Models, making it available faster for all stakeholders.

3. Audits Export to Excel

- The changes made by a production accountant to close the balances can be verified easily with function to Excel export for audit logs. Just hit the Export to Excel button on any audit screen and get your data in a clean, shareable format.

Honeywell PAR support policy

RELEASE	RELEASE DATE	CURRENT (Start date)	SUPPORTED (Start date)	PHASED OUT
R3.1.0	Oct 2025	Oct 2025	Oct 2027	Oct 2030
R212.x	Aug-2022	Aug-2022	Sept 2025	Aug 2027
R211.x	Dec-2020	Dec-2020	Aug-2022	Jan - 2026
R210.x	Jan-2019	Jan-2019	Dec-2020	Jan - 2025
R201.x	Aug-2017	Aug-2017	Jan-2019	May-2022

SUPPORT CYCLE



VMWare Support Update

Honeywell continues to invest in VMware solutions for our customers. New VMware based systems remain available for sale, and we will continue to qualify VMware for Honeywell applications, including Experion PKS. With an active support agreement, you will receive expert assistance, access to the currently qualified vSphere release, and platform updates aligned with future VMware releases.

Honeywell-issued VMware Embedded OEM Foundation licenses include VMware support coverage through June 13, 2030. We will support the Honeywell platforms with current and future versions of VMware and will facilitate support with VMware as needed.

We understand that licensing and support considerations can raise important questions for your business.

Honeywell will continue to pursue all avenues to maintain support coverage for VMware systems, and support details and future updates to this article can be found on the Honeywell support site:

https://process.honeywell.com/us/en/services-and-support/support-center/technical-support/technical-solutions/article-detail.ka_000191839.

End of Sale Announcement for 8C-PCNT03 C300 controller variant for Experion LX/PlantCruise

Honeywell is continuously enhancing, improving and innovating to offer our customers a state-of-the-art Technology. As part of this, Experion C300 Controller 8C-PCNT05 has been launched in Nov 2023.

This is to announce that 8C-PCNT05 replaces previously sold 8C-PCNT03 controller and starting September 2025, the 8C-PCNT03 is declared 'end of general sale'. As HPS support policy, spare/replacement parts will be available.

8C-PCNT05 controller provides higher performance and other enhancements which includes-

- Same form factor as C300 (8C-PCNT03) and interoperable with IOTA (8C-TCNTA1), no change in the currently supplied IOTA
- Extended temperature support for harsh environment. (HAZLOC 2, -40 to 70 Deg C)
- Enhanced control performance and capacity
- Enhanced Security & Embedded control firewall - ISA Secure CSA L2
- New enhanced RAM Charger Module (50182539-001)

Please contact Offering Manager or Honeywell representative for more information.

Contact:

[Nicolas Xu](#)

Global Offering Manager

Reminder – Coax LCN/UCN Phase-Out, December 31, 2025

Honeywell's coax platform, which includes the LCN/UCN products, xPM family, and FSC controllers, has been in service for nearly three decades. However, continued support is increasingly affected by suppliers discontinuing essential components. Previous communications, such as our announcements, HUG presentations, and System HINTS from November 2021, March 2023, April 2023, December 2023, March 2024, and April 2025 have stated that all coax products will transition to “Phased Out” support status starting December 31, 2025.

What is meant for Phased Out support:

- No new parts/components/parts are available
- Commercially reasonable support effort
- Support services to modernize existing systems are available
- Certified Recycle Parts as available

Modernizing your process control system not only addresses obsolescence and ensures long-term supportability, but it also enables you to leverage Honeywell's latest and most advanced solutions to achieve optimal process performance.

We recommend planning for modernization to our latest platforms, Experion, C300PM, and Safety Manager, if you haven't already done so.

PREVENTIVE MAINTENANCE TIPS

Safety Manager System Power Supply FC-PSU-xxxxxx

Service Note – SMS Power Systems

Proper Maintenance when Safety is on the Line

Your Safety System is protecting your process equipment and proper power supply maintenance ensures the system remains available. Each part of the system should be inspected, and alarms acted upon immediately. Failure to proactively maintain power supplies, batteries, and related equipment, or ignoring power system alarms, could lead to electrical failures. Depending on your configuration and process, power failures could potentially shut down a process or trigger loss of view, loss of control, or loss of process incidents.

Power System Maintenance Increases Reliability

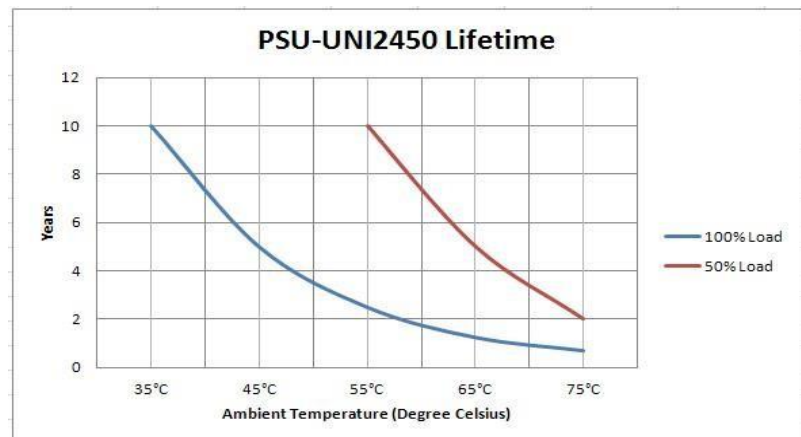
The Safety Manager Systems Troubleshooting and Maintenance Guide Section 5 and the Fail Safe Controller FSC Service Manual Section 7 provide further guidance and service checklists for actions to maintain the system properly providing the longest life and best system performance. After 10 years of service in normal operating conditions, power supplies have a higher probability of failure and should be inspected annually. Replacements should be planned.

Replacing the Power Supply before Failure

Increase Your System Reliability

Even with proper maintenance and environment, power supplies should be replaced before they fail. For redundant systems, a phased approach may be helpful to replace one in each pair and then replace the other in the next maintenance cycle. Reliability will vary widely based on the load and temperature the power supply is subjected to.

Normal temperature is maintained at 35 Deg C and a fully loaded PSU could experience a shorter life based on the temperature. This highlights the importance of maintaining the fan operation. Many safety systems utilize a redundant power supply such that under normal operation each unit carries 50% of the load. Additionally, the PSU load is generally specified with spare capacity. For example, with a minimum of 25% spare capacity, each PSU worst case only carries 40% of the load. In this configuration, temperature and load are not limiting the PSU reliability. Other factors such as dust and humidity become the limiting factors, although the wide variation of these environmental conditions makes an exact life expectancy unknown.



Power Supplies

Benefits of Newest Version of PSU

Honeywell has made several advancements to the SMS Power Supply based on observations from the field. The design and manufacturing techniques have been altered to increase the ability to withstand dust build up across the High Voltage circuit. These modifications make the unit more robust against adverse environmental conditions which can lead to failure.

The above changes have been incorporated into PSU version 2.1. This version has been in production since August 2012 and the results in the field prove these enhancements are performing as intended and will increase the overall lifespan of the PSU. This reduces the risk of failure and unplanned downtime adding additional stability to your Safety System.

Upgrade Your PSU to the Latest Version

To upgrade to the version 2.1 PSU, reference the table below providing the existing version of the power supply unit and corresponding Version 2.1 for each. Get your new and more robust PSU soon.

Output Voltage	Existing Model Number	Replacement Part Number (V2.1)
24 VDC	FC-PSU-UNI2450 V1.0	FC-PSU-UNI2450U
24 VDC	FC-PSU-UNI2450 V2.0	
24 VDC	FC-PSU-UNI2450U V1.0	
48 VDC	FC-PSU-UNI4825U V1.0	FC-PSU-UNI4825U
60 VDC	FC-PSU-UNI6020U V1.0	FC-PSU-UNI6020U
110 VDC	FC-PSU-UNI11011U V1.0	FC-PSU-UNI11011U
120 VDC	FC-PSU-UNI12010U V1.0	FC-PSU-UNI12010U

Note: Power supplies older than those listed above are not a direct form/fit replacement. The new power supply is recommended but additional components will require replacement to for compatibility.

Contact your local Honeywell Service Representative or Account Manager for information about compatibility, additional requirements, pricing or to place an order.

Power Supply Alarms

Alarms

The SMS Power Supply (PSU) includes diagnostics and alarms which should be confirmed to be properly working, monitored, and acted upon. These are the indicators that the power supply needs attention before failure occurs. There are LED indicators for:

- Internal high air temperature > 90 Deg C
- Fan speed too slow
- Output voltage outside range (table at right).

Power supplies have built-in over-voltage protection to prevent the PSU from over-driving the Safety System (voltage). If the

output voltage is consistently outside of range, contact Honeywell for further information to recalibrate the Power Supply Unit (PSU).

Model	Output Supply Voltage	Expected Range
FC-PSU-12010U	120 Vdc	+15% to -22%
FC-PSU-11011U	110 Vdc	+25% to -15%
FC-PSU-6020U	60 Vdc	+15% to -15%
FC-PSU-4825U	48 Vdc	+15% to -15%
FC-PSU-2450U	24 Vdc	+30% to -15%

Power Supply Environmental and Mechanical Factors

The overall useful life of any electronic equipment can vary based on the environmental conditions they are exposed to and where they are installed. The following are critical to the lifecycle of the PSU and continued health of the system.

Humidity

Humidity levels should be maintained between 40% and 60% with fluctuations of less than 6% rate-of-change per hour. If humidity is substantial, conditioned air along with humidity monitoring within the cabinet may be needed. During maintenance, look for traces of condensation anywhere in the cabinet – this is a sign that the climate control is beginning to fail.

Corrosion

Look at the paint and exposed metal surfaces within the cabinet for visible signs of corrosion. Corrosive salts and chemicals are kept out of the cabinet by keeping the door closed. Be aware of metallic debris such as airborne zinc that originates from the underside of raised floor tiles commonly used in computer rooms or any nearby hardware assembly or construction activities. If deterioration occurs that you can see, then even further damage is occurring in the components you cannot see and actions should be taken to further reduce contaminants.

Dust

Check the surfaces of the PSU and the bottom of the cabinet for dust and if an excessive concentration is found, remove

the dust with a soft anti-static brush and vacuum within the cabinet. Replace the cabinet fan dust filters regularly. The specific filter will vary based on the cabinet installed.

Cabinet Fan and Seals

Ensure the cabinet fan is operational, the filters are clean and not obstructed, that protective plates and covers are secure, and that all cabinet penetrations are sealed. This is essential for avoiding premature PSU failure. A new fan assembly may be ordered under Honeywell part number FC-FANWR-24R. Honeywell recommends replacing the fan every 8 years of operation. The Safety Manager Systems Troubleshooting and Maintenance Guide Section 5 and the Fail Safe Controller FSC Service Manual Section 7 provide further guidance.

Cables

Cables need to be well secured so they do not obstruct the cabinet interior or get jammed between moving parts such as doors, swing frames, or hinged panels. The cables must also not be pulled so tight as to induce mechanical stress on the connectors. Inspect cables to ensure no visual damage or cracking is present and that terminations are not loose and are making good contact.

Power Systems for PM / APM / HPM / EHPM / EHPMX / C300PM, Remote I/O, and PMIO

Service Note – TPS Power Systems

Maintaining power is critical to all systems. A TDC/TPS cabinet may include controllers from legacy PM / APM / HPM (xPM), to EHPM and latest generation EHPMX / C300PM, with the corresponding family of I/O. Failure to proactively maintain power supplies, batteries, and related equipment, or ignoring power system alarms, could lead to electrical failures. Depending on your configuration and process, power failures could potentially shut down a process or trigger loss of view, loss of control, or loss of process incidents.

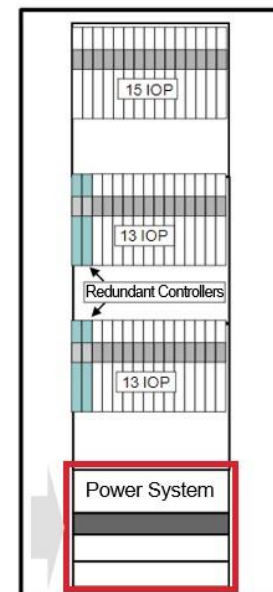
Power System Maintenance Increases Reliability

Proper maintenance of the power system includes addressing power supplies, battery backup and CMOS memory backup batteries. The expected lifespan of each of these components is different and the lifespan of each is affected by local environmental conditions. Best practice benchmarks for replacing each component are:

- Power Supply: every 10 years
- Battery backup: every three to five years
- CMOS batteries: every two years

A proactive power system maintenance program provides:

- Reassurance that power systems and batteries are running properly
- Lower risk of downtime due to power system issues
- Component replacement coordinated with planned process outages
- Low replacement costs compared to unplanned system downtime
- Improved power system reliability.

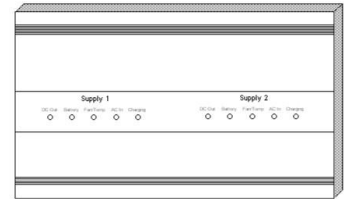


Any power system component failures should be addressed immediately. Major component details follow in the table. Honeywell offers an upgrade kit, MC-ZPSUG2, which packages these components together. The power supply provided is the current version, with improved characteristics compared to older power supplies.

Description	Life Expectancy	Replacement Part #
Power Supply	10 years	51198651-100
48V Battery Backup	3 to 5 years	51303948-100
Size "AA" Ni-Cad CMOS Battery	2 years	51190422-100
Size "C" Ni-Cad CMOS Battery	2 years	51192060-100

Power Supplies

The power supply is the heart of the TDC/TPS xPM power system. Honeywell recommends a redundant power supply configuration with each power supply fed by its own dedicated power source. Honeywell's current power supply is a next generation model that increases power system robustness. Even with redundant power supplies, one must be careful when changing out a failed power supply. This is to minimize disturbance of the environment and to reduce the introduction of particles into the area around and near the power supplies. Those particles can be pulled through the airflow of the working power supply and result in the second power supply failing. For this reason, Honeywell does not recommend replacing a working power supply on-process (except for the black colored version). You should replace all power supplies that are nearing or have exceeded the 10-year service life at the earliest opportunity. Honeywell recommends scheduling replacements during planned down time when possible. Always follow the power supply replacement procedure listed in the Honeywell xPM Service Manual.



Power Supply Issues

xPM power systems are reliable and robust when proper maintenance and periodic component replacements are done according to lifecycle recommendations. As power supplies age, electrical components undergo normal lifecycle deterioration. Failure potential increases significantly after a power supply passes its 10-year service life.

Preventing foreign particle contamination is a key to achieving the planned 10-year lifecycle. Even clean environments are susceptible to whiskers which have the potential to short out active circuits. Further details on whiskers and other issues are in the Customer Resource Manual (CRM) in the Process Manager section PD22_G97(G).

The power system maintenance kit features the latest generation power supply, designed to address common failure modes, making the robust power supply even better.

The power supply is a critical system component. Regular maintenance and spares parts are highly recommended to ensure control system reliability. Monitor the power system alarms and take immediate action when they occur.

Servicing the Power System

The power system is critical to your process. Loss of the power system may lead to loss of control, loss of view, or loss of process. Honeywell strongly recommends regular power system maintenance and service checks with regular component replacements performed by Honeywell trained service technicians.

Planning Power System Upgrade / Maintenance:

- Order the power system upgrade kit
- Order replacement parts for immediate installation.
- Order spares to have in stock for emergencies.
- Add power system components to a parts contract.

Note that there is always risk involved when powering down equipment and possible issues when the equipment is powered back up. Honeywell recommends changing power supplies off-process when possible. Replacements on- process should be done only when a power supply fails. Immediate replacement required to restore power supply redundancy.

Additional Power System Information

Additional details on proper maintenance procedures such as load testing and specifics on the power supplies and batteries may be found in the Honeywell Customer Resource Manual. This is in the Process Manager section of the CRM under TAB 22. As always, you may also contact your local Honeywell account manager or service technician for further details.

Benefits of New Power Supplies

- Improved airflow handling
- Conformal coating of all metallic components
- Enhanced mechanical design
- Extended temperature range
- Added thermal shutdown capability
- More reliable power switch design
- More consistent alarm handling

Replace Version 1 and Version 2 Silver Power Supplies

There are three versions of silver power supplies, identified by part number:

- Version 1: part number 51109684-100/300, sold from 1993 through 1997. [Now > 25 years old]
 - Version 2: part number 51198947-100, sold from 1997 through 2012. [Now > 11 years old]
 - Version 3, current generation, 51198651-100
- Honeywell recommends urgent replacement of all Version 1 and version 2 silver power supplies as they have exceeded the recommended 10-year service life.

As stated previously, Honeywell recommends changing the power supplies off-process, when possible, to avoid introducing contaminants into the redundant supply's air system. Replacements on-process should be done only when a power supply fails, and replacement is then required immediately. Ensure alarm contacts are properly wired, proper power & grounding is strictly maintained, and the environment is free from airborne conductive contaminants (whiskers from false floors, standoffs, conduit; and debris from self-tapping screws, drilling, filling). It is important to keep the cabinet doors closed, the covers inside the cabinets installed. Refer to the Honeywell xPM Service Manual for all power supply maintenance and replacement procedures.

Batteries

48 Volt Battery Backup

The battery backup is designed to maintain a fully loaded xPM for a minimum of 20 minutes. To prevent the power supply from going out of regulation, it will shut down when the voltage reaches 38 volts and an alarm will be generated. Rechargeable batteries lose their full charging capabilities over time and need to be tested and replaced when they fall below 60 percent of original capacity.

The battery backup is designed to operate in standby (float) service for approximately five years based on:

- Battery temperature maintained at 20C (68F)
- Float charge voltage maintained between 2.25 and 2.30volts per cell.
- Planned full discharge once every three months.

No battery should remain in service longer than five years. If no maintenance is conducted, it should be replaced every three years.

Battery service life is directly affected by the number of discharges, the depth of discharge, ambient temperature, and the charging voltage. The expected service life is reduced by 20% for each 10C that the ambient temperature is above 20C.

Replace Black Power Supplies

In October of 1996 Honeywell issued a customer priority notification (PN #1986) about a possible over-voltage issue with the black colored (51109456-200) power supplies delivered between 1988 and 1994. Honeywell recommended replacing the black power supplies with the newer silver version.

Honeywell recommends urgent replacement of any remaining black power supplies with power supply part number 51198651-100.

Batteries should never be left in a discharged state. This allows sulfating to occur, which increases the internal resistance of the battery and lower its capacity. The self-discharge rate is about 3% per month at an ambient of 20C. The self-discharge rate doubles for each 10C in ambient above 20C. The discharged voltage of the battery should never go below 1.30 volts to maintain the best battery life.

Honeywell recommends periodically load testing batteries to ensure they have sufficient capacity to maintain the system during a power outage. Tests should be completed annually and more frequently as batteries age and begin to lose capacity. The load test is recommended off-process if possible as there will be no battery backup available while performing the test and recharging of the battery pack can take up to 16 hours. Having a spare available to swap, especially if doing on process, is a wise option leading to minimal time without battery backup and allowing the tested battery to be recharged on a bench outside the system for future swap with the next test.

If regular maintenance is not performed, Honeywell recommends reducing the battery replacement cycle from five years to three years.

CMOS Memory Battery Backup

The xPM power systems are designed to provide battery backup to all the CMOS memory. The CMOS battery backup prevents the loss of the data base during a power outage after the battery backup has been depleted or if no battery backup module is present. There are two different power system chassis out in the field with CMOS batteries. The older style power system introduced with PM/APM requires three specific "AA" size Ni-Cad batteries. For the current back panel introduced for HPM the CMOS memory requires three specific "C" size Ni-Cad batteries. Size "C" batteries are required to provide 50 hours of CMOS memory backup. Usage of non-Honeywell-qualified batteries may result in battery overheating and potential failure.

Power System Diagnostics

Always ensure that all power supply alarm contacts are properly implemented, working, and are being monitored. Failure to monitor these alarms and take appropriate action in a timely manner can lead to failures of the power system that could have otherwise been prevented. There are DC Out, Battery, Fan/Temp, AC In, and Charging LED indicators for each Power Supply module. If the Power system is fully functional, all five of the indicators are illuminated. In addition, each of these conditions, plus a CMOS/Memory is available as a digital input for each supply.

DC Out Indicator

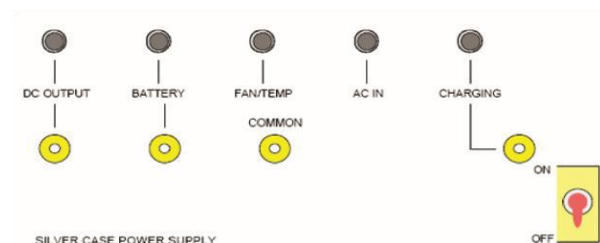
If a DC Out LED is off, AC line power has been lost (check the AC In LED) or the Power Supply Module has failed. If the Power System is non-redundant, or if both DC Out LEDs are off, the HPM has lost 24 VDC. The CMOS backup system maintains power to the CMOS memory, so subsystem programs are not lost. See the Battery LED description below. The annunciator contact illustrated in the following figure will open when these conditions occur.

Important Power System Alarms

The batteries in the standard power system are periodically tested by the charging circuit. If the voltage falls below the allowed limit, a battery failure alarm will be generated, and the batteries should be replaced. Regardless of alarms, Honeywell recommends that new batteries be installed every two years. All three batteries should be replaced at one time.

Battery Indicator

If the Battery LED is off and the Charging LED is on, the 48 Volt Battery switch is in the off position, or the 48 V Battery Backup system has failed. The annunciator contact illustrated in the following Figure will open when these conditions occur. If the Power System does not have the battery pack option, the Battery LED will normally be on, and the Charging LED will normally be on.



Fan/Temp Indicator

If the Fan/Temp LED is off, the fan in the Power Supply Module has failed or the temperature of the supply has exceeded a safe value. The annunciator contact, discussed below, is activated.

AC In Indicator

If the AC In LED is off, AC power to the HPM has been lost or the switch on the Power Supply Module is off. Backup systems, if operating, are maintaining the unit. Check the DC Out and Battery indicators to determine the state of the system. Many installations may have the Power Supply Modules connected to separate AC power sources to minimize outage caused by a power loss. The Annunciator contact signifying power loss from either supply, are opened independently.

Alarms

The primary Power Supply Module alarm and secondary Power Supply Module alarm contacts monitor five functions within each Power Supply Module. The appropriate contact will open when any of the following occur:

- The DC output voltage is not within normal limits.
- AC input power to the supply has failed.
- The Power Supply Module electronics have overheated, or the Power Supply Module fan has failed.

Charging Indicator

When the Charging LED is off, the charging circuit that maintains the optional 48 V Battery Backup system has failed. Check the batteries, their corresponding connections, and the charging circuits in the Power Supply Module(s). The annunciator contact output is opened by this condition.

- The 48 V backup-battery system has failed because the batteries have discharged, or they have been disconnected.
- The battery charger in the Power Supply Module has failed.



Power Systems for PM/APM/HPM, Remote I/O, and PMIO

It Doesn't Run Without Power – Proper Maintenance of Power Systems

Maintaining the power system is critical for any of your systems and that is definitely true when dealing with the PM/APM/HPM (xPM) family. Depending on your configuration and process, the failure of proper maintenance practices and ignoring alarms from the power system could lead to failures that have the potential to bring a process or plant to a standstill. This includes loss of view, loss of control, or even loss of the process. Proper maintenance of the power system includes addressing the power supplies, battery backup and the CMOS memory backup batteries. The expected lifespan of each of these components is different and the lifespan of each is also affected by the environment in which they are used. Benchmarks for changing out each component are every 10 years for the power supply, every five years for the battery backup (and possibly every three), and every two years for the CMOS batteries. **Honeywell now offers an upgrade kit, MC-ZPSUG2, which provides all of these components packaged together. The power supply provided is a new version with improved characteristics and offered only through these kits at this time.**

Any failures of these power system components should be changed immediately.

Description	Life Expectancy	Replacement Part #
Power Supply 48V	10 years	51198651-100
Battery Backup	3 to 5 years	51303948-100
Size "AA" Ni-Cad CMOS Battery	2 years	51190422-100
Size "C" Ni-Cad CMOS Battery	2 years	51192060-100

CMOS Memory Battery Backup

The xPM power systems are designed to provide battery backup to all the CMOS memory. The CMOS battery backup prevents the loss of the data base during a power outage after the battery backup has been depleted or if no battery backup module is present. There are two different power system chassis out in the field with CMOS batteries. The older style power system introduced with PM/APM requires three specific "AA" size Ni-Cad batteries. For the current back panel introduced for HPM the CMOS memory requires three specific "C" size Ni-Cad batteries. The size "C" batteries are required if the full 50 hours of CMOS memory backup is desired for HPM due to the larger memory available in HPM. In either scenario, the incorrect usage of other batteries than what have been tested and qualified by Honeywell may result in the battery overheating and could possibly cause the battery to rupture.

The batteries in the standard power system are periodically tested by the charging circuit. If the voltage falls below the allowed limit a battery failure alarm will be generated, and the batteries should be replaced. Regardless of alarms, Honeywell recommends that new batteries be installed every two years. All three batteries should be replaced at one time.

Description	Replacement Part #
Size "AA" Ni-Cad CMOS Battery	51190422-100
Size "C" Ni-Cad CMOS Battery	51192060-100

48 Volt Battery Backup

The battery backup is designed to maintain a fully loaded xPM for a minimum of 20 minutes. It will shut down when the voltage reaches 38 volts to prevent the power supply from going out of regulation and an alarm will be generated. Rechargeable batteries will lose their full charging capabilities over time and will need to be tested and replaced when they fall below 60 percent of their original capacity.

The battery backup has been designed to operate in standby (float) service for approximately five years. The five years is based on the battery being kept at 20C (68F) and the float charge voltage being maintained between 2.25 and 2.30 volts per cell. This includes the battery being fully discharged once every three months. No battery should be left in service over five years, and if no maintenance is done it should be replaced every three years.

The service life is directly affected by the number of discharges, the depth of discharge, ambient temperature, and the charging voltage. The expected service life can be shorted by 20% for each 10C that the ambient is above 20C.

The batteries should never be left in a discharged state. This allows sulfating to occur which will increase the internal resistance of the battery and lower its capacity. The self-discharge rate is about 3% per month at an ambient of 20C. The self-discharge rate doubles for each 10C in ambient above 20C. The discharged voltage of the battery should never go below 1.30 volts to maintain the best battery life.

With this in mind it is recommended to periodically load test the batteries to ensure they have sufficient capacity to maintain the system during a power outage. Test should be annual on new batteries and more frequent as they become older and begin to lose capacity. The load test is recommended off-process if possible as there will be no battery backup available while performing the test and recharging of the battery pack can take up to 16 hours. Having a spare available to swap, especially if doing on process, is a wise option leading to minimal time without battery backup and allowing the tested battery to be recharged on a bench outside the system for future swap with next test.

Description	Replacement Part #
48V Battery Backup	51303948-100

If regular maintenance is not performed the recommendation is to change at least every three years rather than every five.

Power Supplies

The power supply is the heart of the xPM power system, and the recommendation is for a redundant power supply configuration having each power supply fed by its own dedicated power source. Honeywell has introduced the next

generation power supply for this family which increases the robustness of the power system.

Even with redundant power supplies one must be careful when changing out a failed power supply to minimize disturbance of the environment and reduce the introduction of particles into the area around and near the power supplies as those particles may be pulled through the airflow of the working power supply and result in the second power supply failing.

For this reason, Honeywell does not recommend replacing a working power supply on-process (other than the black-colored version). However, power supplies do not last forever, and you should consider upgrading older power supplies, or prepare to do so, when the opportunities arise.

The recommendation for changing out the power supplies is every ten years, and this replacement should be included during a scheduled down time if possible. The power supply replacement procedure listed in the Honeywell xPM Service manual should be followed at all times.

Recommend Change of Original Black Power Supplies

In October of 1996 Honeywell issued a customer priority notification (PN #1986) about a possible over-voltage issue with the black-colored (51109456-200) power supplies that were sold from 1988 through 1994. The Honeywell recommendation was to change out those black power supplies with the new silver version. Honeywell still recommends and strongly suggest that these black power supplies be replaced with the current power supply under part number 51198651-100 regardless of when they were put into service.

Silver Power Supplies

There have been three part number versions of the silver power supplies. The first (51109684-100/300) was sold from 1993 through 1997. The second (51198947-100) sold from 1997 through today. The next generation power supply was released in early 2009 and being introduced initially through the power system maintenance upgrade kit. If a site is running the original silver version, they have now been in service for over 10 years and sites should consider the need to replace before they are forced to do so by failure of the power supply. Note that there is always risk involved when powering down equipment and possible issues when the equipment is powered back up. As stated previously, it is recommended to change these out off-process if possible. Replacements on-process should be done only when a power supply fails, and replacement is then required immediately.

Power Supply Issues

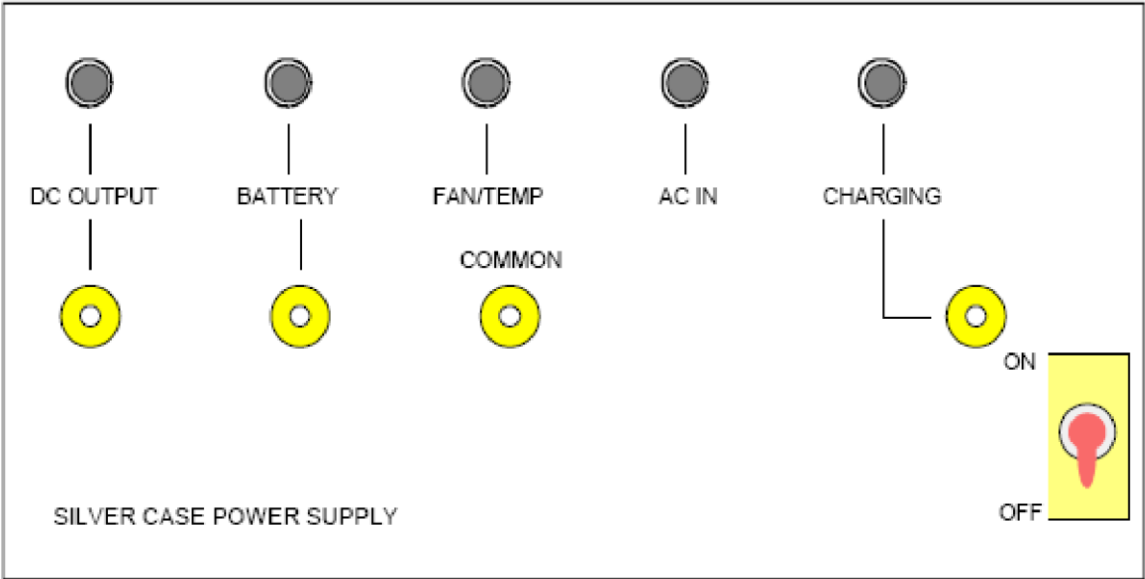
The xPM power supplies have proven to be a reliable and robust power source. However, as with any electrical component they do not last forever and there is the potential for failure modes.

Issues such as foreign particles introduced have already been discussed. In addition, even clean environments are susceptible to whiskers which have the potential to short out active circuits. Whiskers are a real issue and further details may be found in the Customer Resource Manual (CRM) in the Process Manager section PD22_G97(G).

The new power supply available through the power system maintenance kit includes design improvements specifically done to address some of these possible failure modes to make a robust power supply even better.

Remember that the power supply is a critical component to your system and regular maintenance as well as having spares available is highly recommended to keep your site running without problems. Monitor the power system alarms and take action when they do occur.

Description	Replacement Part #
Power Supply	51198651-100



Importance of Power System Alarms

Always ensure that all power supply alarm contacts are properly implemented, working, and are being monitored. Failure to monitor these alarms and take appropriate action in a timely manner can lead to failures of the power system that could have otherwise been prevented. There are DC Out, Battery, Fan/Temp, AC In, and Charging LED indicators for each Power Supply module. If the Power system is fully functional, all five of the indicators are illuminated. In addition, each of these conditions, plus a CMOS/Memory is available as a digital input for each supply.

DC Out Indicator

If a DC Out LED is off, ac line power has been lost (check the AC In LED) or the Power Supply Module has failed. If the Power System is non-redundant, or if both DC Out LEDs are off, the HPM has lost 24 VDC. The CMOS backup system maintains power to the CMOS memory, so subsystem programs are not lost. See the Battery LED description below. The annunciator contact illustrated in the following figure will open when these conditions occur.

Battery Indicator

If the Battery LED is off and the Charging LED is on, the 48 Volt Battery switch is in the off position or the 48 V Battery Backup system has failed, and the annunciator contact illustrated in the following Figure will open when these conditions occur. If the Power System does not have the battery pack option, the Battery LED will normally be on, and the Charging LED will normally be on.

Fan/Temp Indicator

If the Fan/Temp LED is off, the fan in the Power Supply Module has failed or the temperature of the supply has exceeded a safe value. The annunciator contact, discussed below, is activated.

AC In Indicator

If the AC In LED is off, ac power to the HPM has been lost or the switch on the Power Supply Module is off. Backup systems, if operating, are maintaining the unit. Check the DC Out and Battery indicators to determine the state of the system. Many installations may have the Power Supply Modules connected to separate AC power sources to minimize outage caused by a power loss. The Annunciator contact signifying power loss from either supply, are opened independently.

Charging Indicator

When the Charging LED is off, the charging circuit that maintains the optional 48 V Battery Backup system has failed. Check the batteries, their corresponding connections, and the charging circuits in the Power Supply Module (s). The annunciator contact output is opened by this condition.

Alarms

The primary Power Supply Module alarm and secondary Power Supply Module alarm contacts monitor five functions within each Power Supply Module. The appropriate contact will open when any of the following occur:

- The DC output voltage is not within normal limits.
- AC input power to the supply has failed.
- The Power Supply Module electronics have overheated, or the Power Supply Module fan has failed.
- The 48 V backup-battery system has failed because the batteries have discharged, or they have been disconnected.
- The battery charger in the Power Supply Module has failed.

Servicing the Power System

The power system is critical to your process. Loss of the power system may lead to loss of control, loss of view, or loss of process. Honeywell strongly recommends regular maintenance to the power system and service checks with regular component replacements performed by Honeywell trained service technicians.

Options for Power System Upgrade/Maintenance

- Order the power system upgrade kit
- Order replacement parts for immediate installation.
- Order spares to have in stock as needed.
- Add power system components to a parts contract.

Orderable Power System Components

- CMOS Batteries
- 48V Battery Backup
- Power Supply
- Power System Chassis Assembly

Benefits of New Power Supply

- Improved airflow handling
- Conformal coating of all metallic components
- Enhanced mechanical design
- Extended temperature range
- Added thermal shutdown capability
- More reliable power switch design
- More consistent alarm handling

Additional Power System Information

Additional details on proper maintenance procedures such as load testing and specifics on the power supplies and batteries may be found in the Honeywell Customer Resource Manual. This is located in the Process Manager section of the CRM under TAB 22. As always, you may also contact your local Honeywell account manager or service technician for further details.

Product Revisions and Support Status

Supported Standard Software Products	Patch/Update	Support Status	Initial Functional release	Software Product Category
Advanced Formula Manager	R206	Supported		Standalone Software
Control Performance Monitor R60x	R603.2	Supported	2021-08	Standalone Software
Control Performance Monitor R60x	R603.1	Supported	2020-10	Standalone Software
Control Performance Monitor R60x	R603.2	Supported	2022-10	Standalone Software
Control Performance Monitor R60x	R610.1	Supported	2022-06	Standalone Software
Control Performance Monitor R60x	R610.2	Supported	2023-06	Standalone Software
Control Performance Monitor R60x	R611.1	Supported	2024-05	Standalone Software
Control Performance Monitor R60x	R612.1	Current	2024-05	Standalone Software
ControlEdge 2020 R15x	R151.1	Supported	2018-11	Standalone Software
ControlEdge 2020 R16x	R161.1	Supported	2020-04	Standalone Software
ControlEdge 2020 R16x	R160.2	Supported	2019-12	Standalone Software
ControlEdge 2020 R17x	R170.1	Supported	2021-04	Standalone Software
ControlEdge 2020 R17x	R171.1	Supported	2021-09	Standalone Software
ControlEdge 2020 R17x	R172.1	Supported	2022-03	Standalone Software
ControlEdge 2020 R17x	R174.1	Supported	2022-12	Standalone Software
ControlEdge 2020 R17x	R174.3	Supported	2023-06	Standalone Software
ControlEdge 2020 R18x	R180	Supported	2023-12	Standalone Software
ControlEdge 2020 R18x	R180.2	Supported	2024-07	Standalone Software
ControlEdge 2020 R18x	R181	Current	2024-11	Standalone Software
ControlEdge HC900 R60x	R600.1	Supported	2014-04	Standalone Software
ControlEdge HC900 R62x	R620.1	Supported	2016-09	Standalone Software
ControlEdge HC900 R63x	R630	Supported	2017-04	Standalone Software
ControlEdge HC900 R65x	R650	Supported	2018-06	Standalone Software
ControlEdge HC900 R66x	R660.2	Supported	2018-12	Standalone Software
ControlEdge HC900 R70x	R700.1	Supported	2020-07	Standalone Software
ControlEdge HC900 R71x	R710.1	Supported	2021-04	Standalone Software
ControlEdge HC900 R72x	R720.1	Supported	2021-06	Standalone Software
ControlEdge HC900 R73x	R730.1	Current	2022-02	Standalone Software
ControlEdge PLC R15x	R152.1	Supported	2019-04	Standalone Software
ControlEdge PLC R15x	R151.1	Supported	2018-11	Standalone Software
ControlEdge PLC R16x	R161.1	Supported	2020-04	Standalone Software
ControlEdge PLC R16x	R160.2	Supported	2019-12	Standalone Software
ControlEdge PLC R17x	R170.1	Supported	2021-04	Standalone Software
ControlEdge PLC R17x	R171.1	Supported	2021-09	Standalone Software

ControlEdge PLC R17x	R172.1	Supported	2022-03	Standalone Software
ControlEdge PLC R17x	R174.1	Current		
Cyber App Control R400	R400.1	Supported	2022-05	Standalone Software
Cyber App Control R401	R401.1	Supported	2023-07	Standalone Software
Cyber App Control R410	R410.1	Current	2024-08	Standalone Software
Cyber Insights R100	R100.1	Current	2023-07	Standalone Software
DVM R710	DVM R710	Supported	2021-09	System Software
DVM R800	DVM R800	Supported	2023-09	System Software
DVM 2025	DVM 2025	Current	2025-06	System Software
DynAMo Alerts & Notifications (A&N) R200	UA R321.2	Supported	2013-10	Standalone Software
DynAMo Documentation & Enforcement (D&E) R200	ACM R321.12	Supported	2016-05	Standalone Software
DynAMo Operations Logbook (DOL) R246.x	R246.3	Current	2023-01	Standalone Software
DynAMo Operations Logbook (DOL) R24x	R240.1	Supported	2020-04	Standalone Software
DynAMo Operations Monitoring (DOM) R246.x	R246.3	Current	2023-01	Standalone Software
DynAMo Operations Monitoring (DOM) R24x	R240.1	Supported	2020-04	Standalone Software
Enabled Services (Unified Data Collector R150)	R150.2	Supported	2024-10	SaaS Offering
Enabled Services (Unified Data Collector R170)	R170.1	Current	2025-07	
Experion Backup and Restore R52x		Current	2021-12	Software Package
Experion HS R520	R520.1	Current	2022-04	System Software
Experion LX R520	R520.1	Current	2022-03	System Software
Experion MX CDMV Controls R720	R720.1	Current	2023-08	Software Package
Experion MX MDMV Controls R720	R720.1	Current	2023-08	Software Package
Experion MX R720	R720.1	Supported	2023-06	System Software
Experion MX R720	R720.2	Current	2023-06	System Software
Experion PKS R52x	R520.2	Supported	2021-08	System Software
Experion PKS R53x	R530	Current	2024-03	System Software
Fail Safe Controller R80x	R801.5	Current	2014-10	System Software
Field Device Manager R52x	R520.1	Supported	2022-11	Standalone Software
Field Device Manager R52x	R520.2	Supported	2023-01	Standalone Software
Field Device Manager R52x	R520.1 U1	Supported	2022-11	Standalone Software
Field Device Manager R52x	R520.2 U1	Supported	2023-01	Standalone Software
Field Device Manager R52x	R521.1	Supported	2023-08	Standalone Software
Field Device Manager R52x	R521.1 U1	Supported	2024-08	Standalone Software

Field Device Manager R53x	R530.1	Supported	2024-05	Standalone Software
Field Device Manager R53x	R530.1 U1	Supported	2024-06	Standalone Software
Field Device Manager R53x	R530.1 U2	Supported	2024-12	Standalone Software
Field Device Manager R54x	R540.1	Supported	2025-01	Standalone Software
Field Device Manager R54x	R540.2	Current	2025-08	Standalone Software
Forge Blending and Movement R520.y	R520.2	Supported	2021-08	Software Package
Forge Cybersecurity Suite-Enterprise Core and Premium	R204.1	Current	2021-06	Standalone Software
Forge Cybersecurity Suite-Enterprise Core and Premium	R203.1	Supported	2021-02	Standalone Software
Forge Cybersecurity Suite-Site	R204.1	Current	2021-06	Standalone Software
Forge Cybersecurity Suite-Site	R203.1	Supported	2021-02	Standalone Software
HFAM Alarm Performance Optimizer R1.1.0	R1.x.y	Supported	2021-10	Standalone Software
HFAM Alarm Performance Optimizer R2.0.0	R2.x.y	Supported	2024-08	Standalone Software
HFAM Alarm Performance Optimizer R3.0.0	R3.x.y	Current	2025-08	Standalone Software
HFAM Reporting R2.2.x (Formerly DynAMo Metrics and Reporting)	R2.2.x	Supported	2022-07	Standalone Software
HFAM Reporting R2.3.x (Formerly DynAMo Metrics and Reporting)	R2.3.x	Current	2025-03	Standalone Software
Honeywell Blending and Movement R530.y	R530.3	Current	2024-01	Software Package
Honeywell Connected Workforce Competency	R1.0.x	Supported	2023-05	SaaS Offering
Honeywell Forge Inspection Rounds	R8.4	Current	2021-11	Standalone Software
Honeywell Forge Inspection Rounds	R7.6	Supported	2020-07	Standalone Software
Honeywell Forge Workforce Competency	R520.1	Supported	2021-09	Standalone Software
Honeywell Forge Workforce Competency	R521.1	Supported	2022-10	Standalone Software
Honeywell Trace R160	160,1	Supported	2023-09	Standalone Software
Honeywell Trace R160	160,2	Supported	2024-03	Standalone Software
Honeywell Trace R160	160,3	Supported	2024-09	Standalone Software
Honeywell Trace R170	170,1	Current	2025-11	Standalone Software
Honeywell Workforce Competency	R530.1	Current	2024-07	Standalone Software
Immersive Competency	R100.1	Current	2018-07	Standalone Software
Integrated Automation Assessment R15x	R150.1	Supported	2018-02	Standalone Software

Integrated Automation Assessment R16x	R160.1	Supported	2019-12	Standalone Software
Integrated Automation Assessment R17x	R170.3	Current	2020-09	Standalone Software
MetalsMaster	R140.1	Current	2024-02	System Software
MXProLine R720	R720.2	Current	2023-06	System Software
Operations Safety Advisor R100.x	R100.0	Current	2020-08	SaaS Offering
OptiVision R6.1.0x	R6.1.0.1	Supported	2022-10	Software Package
OptiVision R6.2.0x	R6.2.0.1	Supported	2023-12	Software Package
OptiVision R600x	R600.2	Supported	2019-10	Software Package
PlantCruise R520	R520.1	Current	2022-03	System Software
PMD R92x	R920.1	Supported	2021-09	System Software
PMD R92x	R920.2	Supported	2023-07	System Software
PMD R92x	R920.3	Current	2024-07	System Software
PMD R93x	R930.1	Current	2025-04	System Software
Predict-Amine	R4.0	Supported	2017-09	Standalone Software
Predict-Crude	R2.0	Supported	2015-09	Standalone Software
Predict-O&G	R7.1	Supported	2018-09	Standalone Software
Predict-Pipe	R5.0	Supported	2018-12	Standalone Software
Predict-RT	R140	Supported	2019-06	Standalone Software
Predict-SA	R2.0	Supported	2014-12	Standalone Software
Predict-SW (Sour Water)	R4.0	Supported	2018-12	Standalone Software
Procedure Analyst R41x	R410.0	Supported	2013-01	Standalone Software
Procedure Analyst R43x	R430.1	Supported	2015-06	Standalone Software
Procedure Analyst R50x	R500.2	Supported	2017-03	Standalone Software
Procedure Analyst R51x	R511.1 Patch 1	Current	2020-09	Standalone Software on Experion PKS Media
Process Safety Analyzer R210	2.1.x	Supported	2022-09	Standalone Software
Process Safety Analyzer R2.2.0	2.2.x	Current	2025-03	Standalone Software
Process Safety Workbench v5.0.2.x	v5.0.2.1	Current	2023-02	SaaS Offering / Standalone SW
Profit Blending and Movement R501.y	R501.3	Supported	2018-05	Software Package
Profit Blending and Movement R510.y	R510.4	Supported	2019-09	Software Package
Profit Suit R51x	R511.1	Supported	2021-08	Standalone Software
Profit Suit R51x	R510.1	Supported	2020-07	Standalone Software
Profit Suit R51x	R511.1	Supported	2021-07	Standalone Software
Profit Suit R51x	R512.1	Supported	2022-07	Standalone Software
Profit Suit R51x	R513.1	Supported	2023-07	Standalone Software
QCS SE	R120.1	Supported	2024-02	System Software

QCS SE	R200.1	Current	2024-12	System Software
Quality OptiMiser R550x	R550.2	Supported	2014-12	Standalone Software
Quality OptiMiser R560x	R560.1	Supported	2017-11	Standalone Software
Quality OptiMiser R560x	R560.3	Current	2023-10	Standalone Software
Safety Historian R20x	R202.1	Current	2014-03	System Software
Safety Management Systems R213	R213.2	Current	2024-01	System Software
Safety Manager R15x	R154.6	Supported	2012-04	System Software
Safety Manager R16x	R162.13a	Current	2014-10	System Software
Safety Manager SC R211	R211.2	Supported	2021-08	System Software
Safety Manager SC R212	R212.1	Supported	2023-01	System Software
Secure Media Exchange (SMX)	202,12	Current	2017-08	Standalone Software
Secure Media Exchange (SMX) + GARD	R203.2	Current	2025-01	Standalone Software
Socrates	R10.0	Supported	2019-03	Standalone Software
Symphonite Integration and Analytics R200x	R200.2	Supported	2017-07	Standalone Software
Symphonite Integration and Analytics R201x	R201.2	Current	2020-01	Standalone Software
Production Accounting & Reconciliation R3.1.x	R3.1.0	Current	2025-10	Standalone Software
Production Accounting & Reconciliation R212.x	R212.3	Current	2022-08	Standalone Software
Production Accounting & Reconciliation R211.x	R211.2	Supported	2020-12	Standalone Software
System Inventory Tool R23x	R230.3	Supported	2018-05	Standalone Software
System Inventory Tool R23x	R230.2	Supported	2018-05	Standalone Software
System Inventory Tool R23x	R230.1	Supported	2018-05	Standalone Software
System Inventory Tool R30x	R300.1	Current	2019-09	Standalone Software
Profit Suit R51x	R514.1	Current	2023-07	Standalone Software
Taiji PID 310x	R310.1	Supported	2016-01	Standalone Software
Taiji PID 320x	R321.1	Current	2023-06	Standalone Software
Taiji PID 320x	R320.1	Supported	2021-04	Standalone Software
TCMI R10x	R100.8	Current	2017-11	System Software
TPN R688.x	R688.7	Supported	2019-01	System Software
TPN R690.x	R690.4	Current	2024-04	System Software
Uniformance Asset Sentinel R53x	R531.4	Supported	2021-04	Standalone Software
Uniformance Asset Sentinel R53x	R532	Supported	2021-09	Standalone Software
Uniformance Asset Sentinel R53x	R532.4	Supported	2022-07	Standalone Software
Uniformance Asset Sentinel R53x	R532.5	Supported	2022-12	Standalone Software
Uniformance Asset Sentinel R54x	R540.1	Supported	2023-08	Standalone Software
Uniformance Asset Sentinel R54x	R540.2	Supported	2024-02	Standalone Software

Uniformance Asset Sentinel R54x	R540.3	Supported	2024-07	Standalone Software
Uniformance Executive R31x	R311.1	Supported	2018-03	Standalone Software
Uniformance Executive R32x	R320.1	Supported	2018-09	Standalone Software
Uniformance Executive R33x	R330	Current		Standalone Software
Uniformance Insight R2.3.x	R2.3.0	Supported	2021-12	Standalone Software
Uniformance Insight R2.4.x	R2.4.0	Supported	2022-07	Standalone Software
Uniformance Insight R2.5.x	R2.5.0	Current	2024-09	Standalone Software
Uniformance Insight R22x	R220.1	Supported	2020-09	Standalone Software
Uniformance KPI R12x	R121.1	Supported	2017-05	Standalone Software
Uniformance KPI R13x	R131.1	Supported	2019-11	Standalone Software
Uniformance KPI R13x	R130.1	Supported	2018-03	Standalone Software
Uniformance KPI R14x	R140.1	Current	2023-11	Standalone Software
Uniformance PHD R41x	R410.1	Supported	2021-03	Standalone Software
Uniformance PHD R43x	R430.1	Current	2023-08	Standalone Software
UniSim Design	R510	Current	2024-11	Standalone Software
UniSim Design	R500	Supported	2023-11	Standalone Software
UniSim Design	R492	Supported	2022-11	Standalone Software
UniSim Design	R491	Supported	2022-05	Standalone Software
UniSim Design	R490	Supported	2021-11	Standalone Software
UniSim Design	R481	Supported	2021-06	Standalone Software
UniSim Design	R480.1	Supported	2020-10	Standalone Software
UniSim Design	R471.1	Supported	2020-01	Standalone Software
UniSim Design	R470.1	Supported	2019-10	Standalone Software
UniSim Design	R461.1	Supported	2019-06	Standalone Software
UniSim Design	R460.1	Supported	2018-05	Standalone Software
Web Order Services 54x	R540.1	Supported	2014-08	Standalone Software
Terminal Manager R671	R671.1	Supported	2019-01	Standalone Software
Terminal Manager R680	R680.1	Supported	2019-10	Standalone Software
Terminal Manager R681	R681.1	Supported	2020-02	Standalone Software
Terminal Manager R690	R690.1	Supported	2020-10	Standalone Software
Terminal Manager R700	R700.1	Supported	2021-08	Standalone Software
Terminal Manager R701	R701.1	Supported	2022-05	Standalone Software
Terminal Manager R702	R702.1	Supported	2023-02	Standalone Software
Terminal Manager R703	R703.1	Supported	2023-09	Standalone Software
Terminal Manager R704	R704.1	Supported	2024-01	Standalone Software
Terminal Manager R705	R705.1	Supported	2024-07	Standalone Software
Terminal Manager R706	R706.1	Supported	2024-09	Standalone Software
Terminal Manager R710	R710.1	Current	2025-04	Standalone Software

Note: Software releases not listed in the table are in “Phased Out” lifecycle status. The HPS Product Support Guide for Control, Safety and Monitoring Systems is available for download following link below (Requires Login)

<https://process.honeywell.com/us/en/support/technical-publication?search=product%2520support%2520guide%2520for%2520control%2520safety%2520and%2520monitoring%2520systems>

Definitions:

“Software Package” means any HPS software product developed for the specific functional release of system software.

“Standalone Software” means any HPS software product developed for independent operation from a system software functional release.

“System Software” means machine-readable data and executable programs used to define the functionality of the HPS control system and standard hardware products, but does not include firmware, operating system, application software or other software products.

“SaaS Offering” means any HPS software product which applications are hosted through the cloud and made available to end users over the internet.