Problem

− Use, age, and environmental conditions combine to weaken control system power supplies
− Obsolete components drive up maintenance costs
− Out of date or faulty power supplies can jeopardize production processes
− Upgrading process control equipment can be challenging because of the planning and coordinating involved
− Making improvements to control systems requires careful staging of all the components needed for the upgrade
− Processing equipment can be idled for lengthy periods if parts for an upgrade are not available or staged correctly

ABB develops kits to upgrade Harmony control system power supplies.

New power supplies provide stable and reliable operations for older control systems.

Solution

ABB’s Harmony control system power supply upgrade kits.

The benefits:

− ABB’s Harmony control system power supply upgrade kits make it easy to evolve distributed control system hardware to the latest power supply versions
− New power supplies extend the lifecycle of operational systems
− These kits deliver 2N redundancy to ensure that critical equipment operates nonstop
− These kits contain all required equipment and mounting hardware for upgrades to Harmony, NET 90, INFI 90, MPSI, and Symphony MPSII power systems, and eliminate the need for control system users to develop extensive bills-of-materials

ABB’s solution is best because:

− These control system upgrade kits deliver a smooth evolution to ABB’s most current power supply offerings
− ABB put these kits together based on experience and knowledge of the parts necessary to do a thorough makeover for Symphony/Harmony/INFI 90 control system power supplies
− These upgrade kits eliminate concerns that you won’t have all of the parts you need to upgrade your control system
− These upgrade kits reduce worries that your processing lines could be down because you don’t have the correct parts to do a makeover

Modular Power System III upgrade kit
Part number MPSIII-SYSTEM-KIT. Supports input voltages of 120VAC or 220VAC. Hardware included:

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Part Number</th>
<th>Description</th>
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<tbody>
<tr>
<td>2</td>
<td>P-HA-RPS-32000000</td>
<td>Power supply assembly MPS3 ±15V OVP</td>
</tr>
<tr>
<td>1</td>
<td>P-HA-RPS-CH100000</td>
<td>Chassis, power, MPSIII</td>
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<tr>
<td>1</td>
<td>P-HA-RPS-FAN03000</td>
<td>Fan MMU cooling 24VDC</td>
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<td>1</td>
<td>P-HA-RPS-PEP11013</td>
<td>PEP, Kit P-H-RPS-PEP11</td>
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<tr>
<td>1</td>
<td>IEPDP01</td>
<td>Power distribution panel</td>
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<tr>
<td>2</td>
<td>66444 87A1</td>
<td>Adjustable mounting rail</td>
</tr>
<tr>
<td>1</td>
<td>19485 06C8</td>
<td>System power BUS bar, DC</td>
</tr>
<tr>
<td>1</td>
<td>66320 52B2</td>
<td>Insulator, BUS</td>
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<td>1</td>
<td>MPSIII-HDW-KIT</td>
<td>MPSIII hardware kit</td>
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Module Mounting Unit
Part number IEMMU21-KIT. Hardware included:

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<tr>
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<td>IEMMU21</td>
<td>Module mounting unit</td>
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<tr>
<td>10</td>
<td>NKEB01</td>
<td>Expander BUS cable</td>
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<tr>
<td>1</td>
<td>66322 85A64</td>
<td>Assembly, wire and terminal</td>
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<td>1</td>
<td>66400 06A1</td>
<td>Assembly, cable</td>
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<tr>
<td>5</td>
<td>NMPC16002</td>
<td>Spring nut</td>
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<tr>
<td>5</td>
<td>NIDAC16008</td>
<td>SLT, pan screw</td>
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</table>

(Module mounting units are not required for all power supply upgrades. Your ABB field service engineer can advise when a mounting unit is needed.)
Specifications
The Modular Power System III (MPSIII) is specifically designed for powering Harmony rack modules and associated field mounted devices. The MPSIII can provide 5, +15, -15, and 24 VDC system power as well as 24, 48, and 125 VDC for field powered devices. Special features of the MPSIII include: power factor correction, on-line power supply replacement, power and cooling status monitoring, and adaptability to various power input sources. The MPSIII assembly includes all the hardware necessary for AC input power distribution to the individual power supplies, DC output distribution, power and fan monitoring, interconnecting cables, and cabinet mounting hardware.

A family of preconfigured power supplies has been engineered to provide various combinations of voltage options and associated power ratings. The MPSIII is designed to support 2N power redundancy. Multiple preconfigured power supply configurations are available to facilitate matching the most cost-effective solution with project power requirements.

- **Inputs:** 120/240 VAC or 125 VDC power feeds allowing mixed AC and DC operation.
- **Outputs:** Provides Harmony system power of 5, +15, -15 and 24 VDC and field power of 24, 48, and 125 VDC.
- **Availability:** Built-in power distribution schemes support single and dual (main and auxiliary, AC and DC) power feeds for 2N power configurations.
- **Reliability:** Automatic load sharing of dual supplies reduces the burden on an individual supply, increasing the overall reliability and high MTBF.
- **Serviceability:** Local status indicators, disconnects, and plug-in cable assemblies facilitate online fault isolation and replacement.
- **Monitoring:** Provides system DC power outputs, field power outputs, fan status, and cabinet temperature monitoring.
- **Industrial Quality:** Designed for operating temperatures as high as 70o C (inside cabinet) as well as MIL-STD ratings for vibration, IEC standards for EMI and RFI, and UL rating for flammability
- **Price/Performance:** Power factor correction, electronic output protection and lower costs are inherent features.
- **Upward Compatibility:** Compact design allows for use in the new standard ABB cabinets and as replacement for older power systems supplied with Symphony™ and INFI 90® OPEN systems.

Order Symphony/Harmony/INFI 90 DCS power supply upgrade kits online, by phone, or email:

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