

MANUFACTURER-SOURCE TECHNICAL REFERENCE

# ABB IMMFP12

## Product Reference

ABB IMMFP12 INFI 90 Harmony Rack Multifunction Processor

### DOCUMENT SCOPE

Independent Apter Power manual compiled only from the cited ABB manufacturer sources. No product photograph is included.

|                           |                                                                   |
|---------------------------|-------------------------------------------------------------------|
| Product / lookup identity | ABB IMMFP12                                                       |
| Reference number          | IMMFP12                                                           |
| Document basis            | Published ABB product records, PDFs, and manuals listed on page 3 |



### Product page

<https://www.apterpower.com/ABB/immfp12>  
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## Product role and published parameters

### WHAT IT IS, WHAT IT DOES, AND WHERE IT FITS

ABB IMMFP12 is a Harmony Rack multifunction processor for process-control applications requiring multiple-loop analog, sequential, batch, and advanced control. The processor receives process I/O from analog and digital I/O modules over the I/O Expander Bus. System context: ABB IMMFP12 INFI 90 Harmony Rack Multifunction Processor.

| Published field | Manufacturer-published value or verified identity note                                                    |
|-----------------|-----------------------------------------------------------------------------------------------------------|
| Processor       | 32-bit processor, 16-bit external bus, 16 MHz                                                             |
| Memory          | 512 kbytes ROM; 512 kbytes RAM; 256 kbytes NVRAM                                                          |
| Power           | +5 VDC at 2 A maximum; 10 W maximum dissipation                                                           |
| Serial ports    | Two RS-232-C, or one RS-485 plus one RS-232-C, up to 19.2 kbaud; NTMP01 or NIMP01 required for connection |
| Station support | 64 IISAC01 stations at 40 kbaud, or 8 NDCS03/NDIS01 stations at 5 kbaud                                   |
| Redundant link  | 1 Mbaud serial link                                                                                       |
| Programming     | Function codes, C, Basic, Batch 90, Ladder, user-defined functions                                        |

## System function and signal path

|    |                                                                                                                                                                                                   |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 01 | System Inputs: Process I/O data received from analog and digital rack I/O modules over the I/O Expander Bus; operator and computer commands arrive through the system communication architecture. |
| 02 | Processing: Executes multiple-loop, analog, sequential, batch, and advanced control strategies using the documented programming environments.                                                     |
| 03 | Outputs: Control data to rack I/O and shared process data to peer/system nodes through the documented rack architecture.                                                                          |
| 04 | Communications: I/O Expander Bus, Controlway, Cnet through Harmony Rack communication modules, serial ports up to 19.2 kbaud, station links, and a 1 Mbaud redundant communication link.          |

## Applications, answers, and official sources

1 Continuous process control: Executes multiple analog loops and complex control strategies using rack I/O.

2 Sequential and batch automation: Supports sequential logic, Batch 90, and ladder-based applications.

3 Plant data acquisition: Collects process I/O and exchanges data with peer controllers and Cnet nodes.

4 Legacy INFI 90 OPEN support and evolution: Maintains documented compatibility while supporting a planned migration toward current Symphony Plus controllers.

## Frequently asked questions

|                                                     |                                                                                                            |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| What is ABB IMMFP12?                                | It is a Harmony Rack multifunction process controller for analog, sequential, batch, and advanced control. |
| Is IMMFP12 compatible with INFI 90 OPEN?            | Yes. ABB states compatibility in functionality, communications, and packaging.                             |
| How does it reach rack I/O?                         | Through the I/O Expander Bus.                                                                              |
| How does it communicate with peer rack controllers? | Over Controlway.                                                                                           |
| How does it reach Cnet nodes?                       | Through Harmony Rack communication modules.                                                                |
| What processor and memory are documented?           | A 32-bit, 16 MHz processor with 512 kbytes each ROM and RAM and 256 kbytes NVRAM.                          |

## Official ABB sources

|                                                                 |                                                                                                                                                                                                                                                                                       |
|-----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ABB Multifunction Processors Data Sheet<br>WBPEEUD230002A1      | <a href="https://library.e.abb.com/public/2b03a2c8722784fcc1256d12005fb3e3/WBPEEUD230002A1_-_en_Multifunction_Processors_Data_Sheet.pdf">https://library.e.abb.com/public/2b03a2c8722784fcc1256d12005fb3e3/WBPEEUD230002A1_-_en_Multifunction_Processors_Data_Sheet.pdf</a>           |
| ABB Harmony Rack Controller Product Overview<br>WBPEEUS230002B1 | <a href="https://library.e.abb.com/public/1c7ed919c3349939c1256d29005d5c48/WBPEEUS230002B1_-_en_Harmony_Rack_Controller_Product_Overview.pdf">https://library.e.abb.com/public/1c7ed919c3349939c1256d29005d5c48/WBPEEUS230002B1_-_en_Harmony_Rack_Controller_Product_Overview.pdf</a> |
| ABB Ability Symphony Plus Product Catalog Rev G                 | <a href="https://library.e.abb.com/public/67f6b20f64d0443da36258e62a597791/2VAA005340%20en%20G%20Symphony%20Plus%20Product%20Catalog.pdf">https://library.e.abb.com/public/67f6b20f64d0443da36258e62a597791/2VAA005340%20en%20G%20Symphony%20Plus%20Product%20Catalog.pdf</a>         |
| ABB customer evolution news – DS Smith                          | <a href="https://new.abb.com/news/detail/117010/common-values-make-ds-smith-and-abb-partners-for-power-and-paper">https://new.abb.com/news/detail/117010/common-values-make-ds-smith-and-abb-partners-for-power-and-paper</a>                                                         |