

MANUFACTURER-SOURCE TECHNICAL REFERENCE

ABB SPBRC300 (BRC300)

Product Reference

ABB SPBRC300 (BRC300) Harmony Rack Bridge Controller

DOCUMENT SCOPE

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

Product / lookup identity	ABB SPBRC300 (BRC300)
Reference number	SPBRC300
Document basis	Published ABB product records, PDFs, and manuals listed on page 3



Product page

<https://www.apterpower.com/ABB/spbrc300-brc300>
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Product role and published parameters

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

ABB SPBRC300, also identified by ABB as BRC300, is a Harmony Rack bridge controller for Symphony Plus and installed Bailey control architectures. The BRC family uses a 160 MHz 32-bit Freescale ColdFire processor and supports more than 150 predefined control algorithms, or function codes. System context: ABB SPBRC300 (BRC300) Harmony Rack Bridge Controller.

Published field	Manufacturer-published value or verified identity note
Processor family	160 MHz, 32-bit Freescale ColdFire (ABB BRC family specification)
Control library	More than 150 predefined control algorithms/function codes
Control types	Continuous, sequential, batch, and advanced control
Programming context	Function codes with C and Batch support at BRC-family level
I/O architecture	Harmony Rack, with ABB architecture support for SD Series and S800 integration
PDP800 capacity	Up to 2 redundant PDP800 pairs per SPBRC300
Memory / maximum function blocks	HOLD - do not copy BRC400/410 2 MB NVRAM or 30,000-block figures to BRC300

System function and signal path

01	Inputs: Controller configuration, peer/system data, and process I/O through the installed ABB rack and remote-I/O architecture.
02	Processing: Executes documented BRC-family continuous, sequential, batch, and advanced control strategies.
03	Outputs: Control commands to compatible ABB I/O and shared controller data to the system network.
04	Communications: Harmony Rack controller buses and documented system/I/O integration; exact installed interfaces depend on project hardware.

Applications, answers, and official sources

1 Continuous process control: Executes analog and regulatory strategies using ABB function-code control.

2 Sequence and batch automation: Supports sequential and batch logic in documented BRC-family applications.

3 Harmony Rack installed-base control: Coordinates local and project-defined remote I/O in Symphony/Harmony architectures.

4 Legacy controller evolution: Supports engineered migration from BRC100 or selected MFP paired-controller applications.

Frequently asked questions

Are SPBRC300 and BRC300 different products?	No separate hardware identity is supported; ABB uses SPBRC300 as the catalog/family designation and BRC300 as the controller model name.
How many canonical pages should be published?	One page containing both official names.
What is BRC300?	It is an ABB Harmony Rack bridge controller.
Which control types does the BRC family support?	Continuous, sequential, batch, and advanced control.
Which processor family is documented?	A 160 MHz 32-bit Freescale ColdFire processor at BRC-family level.
How many PDP800 redundant pairs are documented?	Up to two per SPBRC300.

Official ABB sources

ABB Symphony Plus HR Series Control and I/O brochure	https://library.e.abb.com/public/18f414cba5434d4591603ac425cbd7ea/2VAA005093_E_en_HR_Series_control_and_IO_Print.pdf
ABB Harmony lifecycle and evolution presentation	https://library.e.abb.com/public/68e694df1f5743ba949fbae1859ee3ac/02%20ABB%20Users%20Group%20Anchorage%20Harmony.pdf
ABB PDP800 PROFIBUS interface document	https://library.e.abb.com/public/9b194c0972e64a55b482230d9cf61631/2VAA001982_F_en_Symphony%20Plus%20SD%20Series%20PROFIBUS%20Interface%20PDP800.pdf
ABB INFI 90 evolution planning considerations Part A	https://library.e.abb.com/public/439dd66238ae5509852579c90051e404/3BUS095560_en_-_Evolution_planning_considerations_INFI_90_r1_Part_A.pdf