APTER POWER
INDUSTRIAL AUTOMATION

MANUFACTURER-SOURCE TECHNICAL REFERENCE

ABB SPBRC300 (BRC300)

SPBRC300 BRC300 Controller Architecture and Migration Guide

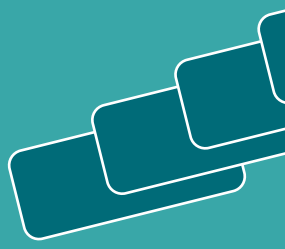

ABB SPBRC300 (BRC300) Harmony Rack Bridge Controller

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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Process I/O, Harmony Rack buses, one SPBRC300/BRC300 controller identity, PDP800, and system peers

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.

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.
05	Boundary: Do not assign BRC400/410 memory capacity or BRC410 Ethernet/Modbus TCP specifications to BRC300.

Single canonical identity with BRC300-specific capacity boundaries and separate P-HC legacy history

01	Verification Status: VERIFIED_SAME_HARDWARE_DUAL_NAMING
02	Lifecycle Status: HOLD - ABB's 2017 lifecycle presentation listed SPBRC300 in the active HR Series, but no exact current formal 2026 lifecycle phase was found
03	Country Of Origin: HOLD - no exact ABB evidence found

Both names, revision, firmware, database, I/O buses, PDP800 count, redundancy, failover, and migration

01	Back up the complete controller database, firmware, tuning, sequence state, and redundancy configuration before service.
02	Verify the nameplate and treat SPBRC300 and BRC300 as aliases, but keep P-HC-BRC300 revision history separate until reviewed.
03	Do not copy BRC400/410 memory, capacity, enhanced-online, or Ethernet specifications into this page.
04	Confirm rack slot, power, PBA, I/O buses, PDP800 count, network addressing, and cable configuration from approved drawings.
05	Use an approved outage, failover, download, rollback, and commissioning plan for controller replacement.
06	Test I/O, peer data, control loops, sequences, alarms, communications, and redundancy before return to production.

Identity and release controls

Verification Status	VERIFIED_SAME_HARDWARE_DUAL_NAMING

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/68e694fd1f5743ba949fbae1859ee3ac/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