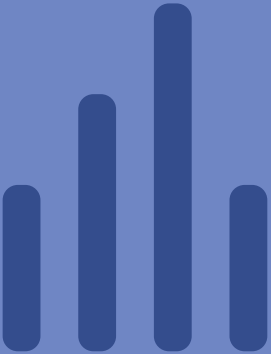


ABB SPBRC400 (BRC400)

SPBRC400 BRC400 Capacity, I/O, and Variant-Safe Migration Guide

ABB SPBRC400 (BRC400) High-Capacity 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 SPBRC400 (BRC400)
Reference number	SPBRC400
Document basis	Published ABB product records, PDFs, and manuals listed on page 3



Product page

<https://www.apterpower.com/ABB/spbrc400-brc400>
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Harmony/SD/S800 I/O, one SPBRC400/BRC400 controller identity, PDP800, system peers, and redundancy

ABB SPBRC400, also identified by ABB as BRC400, is a high-capacity Harmony Rack bridge controller. BRC400 uses the BRC family's 160 MHz 32-bit Freescale ColdFire architecture and supports more than 150 predefined control algorithms.

01	Inputs: Controller configuration, process I/O, and peer/system data through the installed ABB architecture.
02	Processing: Executes up to 30,000 function blocks for continuous, sequential, batch, and advanced control.
03	Outputs: Control commands to compatible I/O and shared controller data to peer/system nodes.
04	Communications: Harmony Rack controller buses and project-defined network/I/O interfaces, including documented PDP800 integration.
05	Boundary: BRC410's integrated Ethernet and Modbus TCP server/client specifications must not be attributed to BRC400.

High-capacity non-Ethernet BRC scope that protects the indexed P-HC legacy variant from overwrite

01	Verification Status: VERIFIED_SAME_HARDWARE_DUAL_NAMING
02	Lifecycle Status: HOLD - ABB's 2017 presentation listed SPBRC400 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, P-HC boundary, firmware, 2 MB NVRAM, 30,000 blocks, I/O buses, redundancy, and failover

01	Back up the complete control database, firmware, tuning, UDF/C/Batch content, and redundancy settings before service.
02	Treat SPBRC400 and BRC400 as aliases, but preserve any P-HC-BRC400 gray-variant record until its nameplate and lifecycle history are reviewed.
03	Do not add BRC410 Ethernet or Modbus TCP specifications to BRC400 content.
04	Confirm rack power, slot, PBA, remote I/O, PDP800 count, network addressing, cables, and firmware from approved drawings.
05	Use an approved outage, failover, download, rollback, and commissioning plan.
06	Test I/O, loops, sequences, batch logic, peer data, alarms, communications, online changes, and redundancy before production release.

Identity and release controls

Verification Status	VERIFIED_SAME_HARDWARE_DUAL_NAMING
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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 Harmony Overview	https://library.e.abb.com/public/02624f56a7220a5ec1257647007117ee/3BUS094398_L_H_en_System_800xA_5.0_Harmony_Overview_lores.pdf