

MANUFACTURER-SOURCE TECHNICAL REFERENCE

ABB P-HC-BRC-41000000

Product Reference

ABB P-HC-BRC-41000000 P-HC-BRC-41000000 Bridge Controller with Ethernet

DOCUMENT SCOPE

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

Product / lookup identity	ABB P-HC-BRC-41000000
Reference number	SPBRC410
Document basis	Published ABB product records, PDFs, and manuals listed on page 3



Product page

<https://www.apterpower.com/ABB/spbrc410>
Apter Power contact

sales13@apterpower.com | +86 180 3023 5313

Product role and published parameters

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

ABB P-HC-BRC-41000000 is the official order-style designation for the Ethernet-enabled BRC410 Harmony Rack bridge controller, also cataloged by ABB as SPBRC410. The controller executes continuous, sequential, batch, advanced, user-defined, and C-based control strategies with capacity for up to 30,000 function blocks. System context: ABB P-HC-BRC-41000000 P-HC-BRC-41000000 Bridge Controller with Ethernet.

Published field	Manufacturer-published value or verified identity note
Processor	Freescale ColdFire MCF5407, 160 MHz, 32 bit
Memory	8 MB DRAM; 2 MB NVRAM
Control capacity	Up to 30,000 function blocks
Controller power	2 A at 5 VDC; 10 W
Serial interfaces	Two RS-232, or one RS-232 plus one RS-485
Ethernet	10/100 Ethernet, RJ45; CAT5 distance context up to 100 m
Modbus TCP	Up to 4 servers, 24 clients, licensed capacities of 500/1500/3000/4000 points

System function and signal path

01	System Inputs: Controller configuration, process I/O, peer-system data, and licensed Modbus TCP client/server data.
02	Processing: Executes up to 30,000 function blocks for continuous, sequential, batch, advanced, UDF, and C-based control.
03	Outputs: Control commands to compatible ABB I/O and configured system or Modbus peers.
04	Communications: Harmony Rack buses, SD/S800 integration, serial ports, 10/100 Ethernet, mini-USB service, and licensed Modbus TCP.

Applications, answers, and official sources

1 Large process-unit control: Executes high-capacity continuous, sequential, batch, and advanced strategies.

2 Modbus TCP integration: Exchanges licensed controller data with configured Modbus TCP servers and clients.

3 Multi-family ABB I/O coordination: Coordinates Harmony Rack, SD Series, S800, and documented PDP800 paths.

4 HPG800 evolution: Supports engineered controller/gateway consolidation where ABB's project documents permit it.

Frequently asked questions

What is P-HC-BRC-41000000?	It is ABB's exact order-style designation for the BRC410 Bridge Controller with Ethernet.
Is it the same product as BRC410?	Yes. ABB's exact user-instruction title maps P-HC-BRC-41000000 to BRC410.
Is SPBRC410 another independent product?	No. ABB uses SPBRC410 as the catalog designation and BRC410 in the product narrative.
Should ApterPower create a new page?	No. Update existing product ID 855774 at /ABB/spbrc410.
How many function blocks are supported?	ABB documents up to 30,000.
Which Ethernet interface is documented?	10/100 Ethernet on RJ45.

Official ABB sources

ABB Harmony Gateway Software 6.0 Release Notes	https://library.e.abb.com/public/4e743aaa3a8e44af8bb8f5a3b041cd1e/2VAA002585-600_B_en_S__Engineering__Harmony_Gateway_Software_6.0_Release_Notes.pdf
ABB Ability Symphony Plus Product Catalog Rev F	https://library.e.abb.com/public/6ea6dcfcd4a048caa70975de2dea4b27/2VAA005340%20en%20F%20Symphony%20Plus%20Product%20Catalog.pdf
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 Symphony evolution planning considerations Part B	https://library.e.abb.com/public/5aec442aca624ac5820915db549c78fc/3BUS095560_en_-_Symphony_Roadmap_Part_B.pdf