ABB CBHX165C 5R 414

DC-Bus Charging Resistor

ABB CBHX165C 5R 414 DC-Bus Charging Resistor with verified technical identity, model-specific selection data and controlled commissioning guidance.

01 Product identity and selection data

Complete model	CBHX165C 5R 414
Product type	DC-Bus Charging Resistor
Manufacturer	ABB
System / platform	ABB ACS800-104 drive charging circuits

02 Exact-model technical capability map

Global commercial alias	CBHX 165 C 5R 414
Product ID	64803689
Documented function	Charging resistor
Resistance per resistor	5.00 ohm
Drive family	ACS800-104
Circuit position	DC-bus precharge path

Quantity dependency	Drive type and voltage class
Parallel-equivalent examples	2.50, 1.67, 1.25, 1.00 or 0.83 ohm using multiple units
Replacement boundary	Resistor quantity and charging-circuit design

03 Engineering role and selection boundary

Precharge-current control

The resistor limits DC-link capacitor charging current before the main charging bypass closes.

Modular resistance scaling

ABB obtains lower equivalent resistance by fitting multiple 5-ohm units in documented converter sizes.

Drive-specific quantity

The correct number is selected from the exact ACS800-104 voltage and power table.

Exact marking

Approve the complete order reference only after the installed interfaces and companion hardware agree.

Technical basis	ABB ACS800-104 Hardware Manual charging-circuit tables, product ID 64803689
Installed relationship	ABB ACS800-104 drive charging circuits
Release gate	Resolve identity, interface and compatibility differences in the written offer before release.

04 Engineering overview and system application

ABB identifies CBHX 165 C 5R 414, product ID 64803689, as a 5-ohm charging resistor used in ACS800-104 charging circuits.
Depending on the converter voltage and power, ABB uses one or more units to obtain the documented equivalent resistance. The model alone does not define the correct quantity for a cabinet.
Service includes isolating and discharging the DC link, checking the charging contactor and fuses, inspecting heat damage and measuring each resistor before restoring the precharge sequence.

Application map

ACS800 DC-link precharge
Limit capacitor inrush before the charging bypass closes.

Parallel resistor assemblies
Build the documented equivalent resistance with the specified number of units.

Charging-circuit fault diagnosis
Check resistor, fuses, contactor and control sequence as one path.

Installed-base spare selection
Match product ID, resistor marking, quantity and drive type.

Lifecycle and available-unit boundary

Lifecycle status	Installed-base drive spare
Supply scope	the CBHX165C 5R 414 dc-bus charging resistor; companion hardware only when itemized
Dispatch	Swift global dispatch
Selection basis	Complete marking, installed relationship and written quotation

Technical notes and evidence boundary

Exact identity	CBHX165C 5R 414
Documented function	DC-Bus Charging Resistor
Technical evidence	ABB ACS800-104 Hardware Manual charging-circuit tables, product ID 64803689
Evidence boundary	Only the documented ABB ACS800-104 drive charging circuits relationship and stated exact-model values are applied
Commissioning record	Retain installed markings, configuration and functional proof

Additional verified exact-model data

Evidence scope	No adjacent-model value is applied without a documented exact-model relationship.

05 Installation and product precautions

Discharge the DC link
Prove zero hazardous voltage before service.

Count installed units
Record quantity and resulting circuit resistance.

Check the charging path
Inspect fuses, contactor, resistor wiring and capacitors.

Measure each resistor
Compare resistance and insulation with the approved design.

Restore thermal clearance
Preserve mounting and separation from sensitive parts.

Observe precharge
Verify DC-link rise and bypass timing.

Controlled verification sequence

01 Record	Send the complete CBHX165C 5R 414 marking, revision labels, current-unit photographs and installed position.
02 Isolate	Apply the approved isolation and prove the safe state before disturbing the installed arrangement.
03 Compare	Reconcile the complete marking, interfaces, companion hardware and approved system record.
04 Prove	Compare the offered CBHX165C 5R 414 interfaces, ratings and included items with the approved system record before ordering.
05 Handover	Retain photographs, settings, readings, diagnostics and accepted deviations.

Engineering decision questions

What resistance is assigned to one CBHX165C 5R 414 unit?
ABB documents 5.00 ohms per CBHX 165 C 5R 414 resistor.

Why can the quantity of CBHX165C 5R 414 vary between drives?
ABB connects multiple units in some ACS800-104 ratings to achieve a lower equivalent charging resistance.

Which cabinet information is needed before ordering CBHX165C 5R 414?
Provide the full ACS800-104 type code, voltage class, charging-circuit drawing and installed resistor quantity.

What must be discharged before servicing CBHX165C 5R 414?
Follow the approved drive isolation procedure and prove the DC link has discharged to a safe level.

Verified related product pages

Recommended product	ABB PM511V16 3BSE011181R1
Recommended product	ABB F4332D 3HAC024322-001
Recommended product	ABB 170M5388/PC72UD13C250T 3AUA0000090404
Recommended product	ABB 170M6467 3AUA0000062487

Discuss the complete marking and installed application with Apter Power

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Scan the approved QR code for direct contact and quotation support.