

OFFICIAL DOCUMENT REFERENCE PACKAGE

Manufacturer's Manual

ABB 3BHE036342R0101

XD D501 A101 / XDD501A101

Reference source: ABB PCS6000 Service Manual

Document 3BHS600000 E80 Rev F

CONDITIONAL APPLICABILITY

Use the appended ABB pages only if project documentation confirms that this board is installed in the referenced PCS6000 / AC800PEC environment. The official manual does not name the exact board identifier.

OPEN COMPLETE ABB SOURCE DOCUMENT

Amikon Limited prepared this navigation package as an independent supplier. The appended pages remain ABB copyright material and the ABB source remains the controlled document.

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SOURCE STATUS AND PAGE INDEX

No public ABB exact-board manual for 3BHE036342R0101 / XDD501A101 was located. The following official pages are included only as a system-level service reference.

Package page 3	ABB PDF page 85 - replacing control components; qualified personnel, high voltage and ESD precautions
Package page 4	ABB PDF page 90 - AC800PEC controller replacement sequence and cable identification
Package page 5	ABB PDF page 91 - identical hardware/software checks, reconnection, LEDs and restart

02

HOW TO USE THIS PACKAGE

- First confirm the installed system and the complete board nameplate against project drawings.
- Use the appended ABB pages only for the system and component categories they actually cover.
- Do not treat controller instructions as proof of this board's electrical ratings, I/O function or compatibility.
- For a board-specific decision, request the controlled project documentation or written confirmation from ABB.

NOT AN EXACT-BOARD ABB MANUAL

This package deliberately omits unverified voltage, terminal, dimension, weight, firmware, lifecycle and application claims.

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8. Replacing control components

8.1. General

The following sections provide instructions on how to replace control components and are intended for qualified personnel who are responsible for servicing a PCS6000 drive.

8.2. Safety information



Before you begin, read and understand the material in chapter 2, **Important safety information**, page 23 and always follow the safety rules that are described in section 2.3.2, **The 7 steps that save lives**, page 26.



! DANGER High voltage!

Dangerous voltage inside the PCS6000 can lead to life-threatening situations, injury of the persons involved or damage to equipment.

- ▶ When planning and carrying out maintenance work, the operating condition of the whole system should be considered.



! WARNING High temperatures, risk of burns!

Rails, reactors, resistors and fuses can be hot.



! CAUTION Cooling fans can start automatically!

The water cooling system and the cooling fans may start automatically as soon as the auxiliary voltage is switched on or when the EMERGENCY OFF button is released, even if the PCS6000 is de-energized.

- ▶ Switch off the corresponding motor protection switches (see diagrams contained in the cabinet specific documentation, tab 2) to shut down the cooling system.



NOTICE Electrostatic discharge (ESD) can damage electronic boards and components!

- ▶ DO NOT touch printed circuit boards or other sensitive components without applying static-sensitive handling precautions!
- ▶ While working with components containing printed circuit boards, use a wrist strap which is earthed at the unit's frame.
- ▶ Whenever components need to be replaced use an antistatic mat on a table near the unit and connect the mat to the same point as the wrist strap.
- ▶ Hold a board only at the edge.
- ▶ Handle a faulty board as carefully as a new one.

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8.4. Replacing AC 800PEC

Service MTTR 0 - 2 h



Figure 8-1 AC 800PEC

1. Shut down the PCS6000 according to the “PCS6000 Lockout/tagout procedure”, 3BHS600000 E22.
2. Switch off MCB -Q306 to interrupt the 3AC 400 V input voltages of the AC/DC converter (24 V power supply).
3. Wait until the IPC shut-down is finished (approximately 5 minutes).
4. On the UPS -G302 turn the selector switch “Bat.-Select” to “Service”, then back to previous value (see Fig. 8-2) to interrupt the 24 V battery supply voltage (the yellow LED “Bat.-Mode” must be dark).



Figure 8-2 UPS -G302 selector switch “Bat.-Select”

1) Selector switch “Bat.-Select”

5. Disconnect all cables and detach the module to be replaced (see Fig. 8-3) and take care that all cables can be clearly identified for reconnection.

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6. Unscrew the two screws (see 1 in Fig. 8–3).
7. Push the device up against the spring mechanism (see 2, circled Fig. 8–3).
8. Tilt the device forward and remove it from the DIN rail (see 3 in Fig. 8–3).

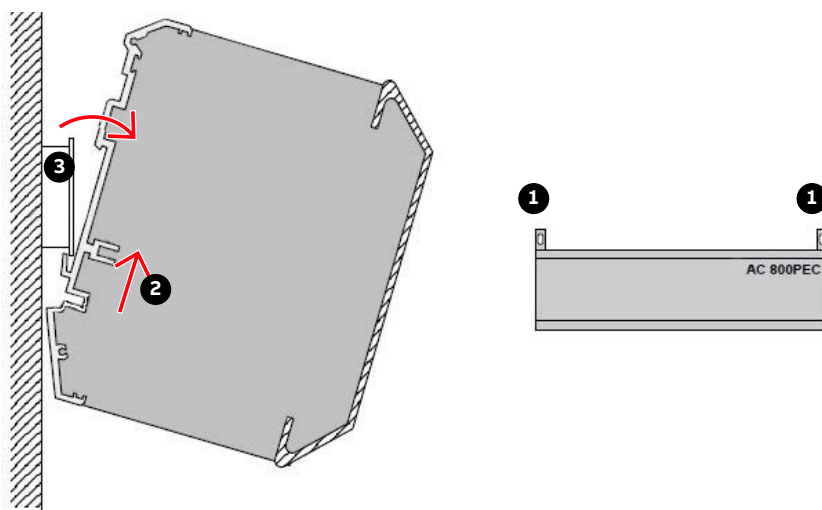


Figure 8–3 Removing a AC 800PEC module

- | | |
|---------------------|-------------|
| 1) Screw | 3) DIN rail |
| 2) Spring mechanism | |

9. Replace the detached module with a spare one with identical hardware configuration and identical software.
10. Check the identification code on the nameplate which must be identical.
For more information, see the AC 800 PEC Hardware Guide, Chapter 6 - Guidelines for Configuration and Ordering, page 123.
11. Reconnect all cables.
IMPORTANT! Make sure that all cables/optical fibers are connected to the correct terminals, otherwise malfunctions or component damages might occur.
12. Power up the module by switching on MCB -Q306.
NOTE – Depending on the replaced board it can be necessary to update the software. Contact ABB Service for further instructions.
13. Check the LEDs for any possible errors according to section 7.4.1, **LEDs on AC 800PEC**, page 82.
14. Restart the PCS6000 according to section 5.4, **Start-up after maintenance or troubleshooting**, page 70.

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