

INDUSTRIAL AUTOMATION PRODUCT

3BHE022293R0101 PCD232A

PC D232 A PEC80-CIO Combined Input/Output Unit

ABB 3BHE022293R0101 PCD232A is a PC D232 A PEC80-CIO combined input/output unit for the UNITROL 6000 family. It provides the documented CIO role and uses system-dependent settings in the installed excitation-system configuration.

IDENTITY	VERIFIED VALUE
Manufacturer	ABB
System family	ABB UNITROL 6000 excitation-system spare-parts architecture
Part number	3BHE022293R0101 PCD232A
Product role	Combines input and output handling in one documented CIO unit
Lifecycle	Installed product record

DOCUMENT SCOPE

Exact-article identity, technical data, host role, installation checks, applications, precautions and engineering verification.

MODEL-SPECIFIC ENGINEERING NOTE

Before removing 3BHE022293R0101 PCD232A, record the installed UNITROL 6000 position and all system-dependent settings. Restore the documented PC D232 A PEC80-CIO arrangement, inspect connections, and complete controlled I/O verification before release.

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3BHE022293R0101
PCD232A

Technical Specifications

Technical values below are limited to the named ABB product record and directly applicable manufacturer documentation.

PARAMETER	VALUE	PARAMETER	VALUE
Identification number	3BHE022293R0101	UNITROL family	UN 6000
Type	PC D232 A: PEC80-CIO	Settings classification	System dependent
Description	CIO Combined Input Output		

Verified Product Record

DATA GROUP	VERIFIED VALUE
Installed host / carrier	ABB UNITROL 6000 excitation-system spare-parts architecture
Primary system role	Combines input and output handling in one documented CIO unit
Connection boundary	Before removing 3BHE022293R0101 PCD232A, record the installed UNITROL 6000 position and all system-dependent settings. Restore the documented PC D232 A PEC80-CIO arrangement, inspect connections, and complete controlled I/O verification before release.
Controlled acceptance duty	UNITROL 6000 excitation-system I/O service

ENGINEERING BOUNDARY

Confirm 3BHE022293R0101, PCD232A/PC D232 A PEC80-CIO, the installed UNITROL 6000 host, hardware execution, terminals, field wiring, grounding, system-dependent settings, controller software and controlled I/O test results before commissioning.

Pre-Installation Checks

- 1

Confirm the complete 3BHE022293R0101 PCD232A marking and PC D232 A PEC80-CIO type before work.
- 2

Place the UNITROL 6000 installation and connected plant equipment in the approved maintenance state.
- 3

Isolate control power and connected field energy before disconnecting the CIO unit.
- 4

Record the installed position, terminal assignments, cable labels and system-dependent settings.

Documented Service Record

RECORD ITEM	REQUIRED ENTRY
As-found article	3BHE022293R0101 PCD232A
Installed host	ABB UNITROL 6000 excitation-system spare-parts architecture
Connection record	Capture before removal
Controlled release	Diagnostics and functional proof

System Role and Architecture

ABB 3BHE022293R0101 PCD232A is a PC D232 A PEC80-CIO combined input/output unit for the UNITROL 6000 family. It provides the documented CIO role and uses system-dependent settings in the installed excitation-system configuration.

FUNCTION 1

Combines input and output handling in one documented CIO unit

FUNCTION 2

Provides the PEC80-CIO interface role in the installed excitation system

FUNCTION 3

Supports controlled restoration of the recorded I/O arrangement

FUNCTION 4

Requires preservation of the system-dependent configuration during service

Matched System Components

NO.	DOCUMENTED COMPONENT / ROLE
1	ABB UNITROL 6000 excitation-system spare-parts architecture
2	PC D232 A: PEC80-CIO
3	UNITROL 6000 excitation-system I/O service
4	Before removing 3BHE022293R0101 PCD232A, record the installed UNITROL 6000 position and all system-dependent settings. Restore the documented PC D232 A PEC80-CIO arrangement, inspect connections, and complete controlled I/O verification before release.

System Integration Record

INTEGRATION ITEM	DOCUMENTED ROLE
Host identity	ABB UNITROL 6000 excitation-system spare-parts architecture
Interface role	Combines input and output handling in one documented CIO unit
Field / power context	The unit is installed as the PC D232 A PEC80-CIO entry within a UNITROL 6000 excitation-system arrangement. Service work must preserve the system-dependent settings and the as-found I/O connections before controlled recommissioning.
Commissioning evidence	Complete a controlled functional test of affected input and output paths before service release.

Installation and Connection Checks

- 1

Use ESD controls and protect the board connectors and terminal interfaces from contamination.
- 2

Restore the documented PC D232 A arrangement without transferring settings from another unit.
- 3

Review I/O status and excitation-system diagnostics after controlled energization.
- 4

Complete a controlled functional test of affected input and output paths before service release.

MANUFACTURER SOURCE RECORD

UNITROL 6000 spare parts included in the offer
ABB Excitation Q4 2019 loyalty offer, 2019

Applications and Engineering Context

UNITROL 6000 excitation-system I/O service

Restores the combined input/output position identified in the installed system record.

PC D232 A planned spare replacement

Uses the exact identification number and type designation for controlled component exchange.

System-dependent configuration recovery

Preserves the recorded settings associated with the installed CIO execution.

Excitation-system recommissioning

Supports connection, channel and functional checks before returning the system to operation.

TECHNICAL NOTE

Before removing 3BHE022293R0101 PCD232A, record the installed UNITROL 6000 position and all system-dependent settings. Restore the documented PC D232 A PEC80-CIO arrangement, inspect connections, and complete controlled I/O verification before release.

Model-Specific Acceptance Evidence

CHECK	ACCEPTANCE CONDITION
Identity	3BHE022293R0101 PCD232A recorded
Host / carrier	ABB UNITROL 6000 excitation-system spare-parts architecture
Physical interface	Combines input and output handling in one documented CIO unit
Configuration	Review I/O status and excitation-system diagnostics after controlled energization.
Functional proof	Complete a controlled functional test of affected input and output paths before service release.

IMPORTANT NOTICE

Confirm 3BHE022293R0101, PCD232A/PC D232 A PEC80-CIO, the installed UNITROL 6000 host, hardware execution, terminals, field wiring, grounding, system-dependent settings, controller software and controlled I/O test results before commissioning.

Controlled Release Summary

RELEASE ITEM	MODEL-SPECIFIC CONDITION
Article identity	3BHE022293R0101 PCD232A
Approved role	UNITROL 6000 excitation-system I/O service
Final validation	Complete a controlled functional test of affected input and output paths before service release.

Engineering Precautions

1	Confirm the complete 3BHE022293R0101 PCD232A marking and PC D232 A PEC80-CIO type before work.	2	Place the UNITROL 6000 installation and connected plant equipment in the approved maintenance state.
3	Isolate control power and connected field energy before disconnecting the CIO unit.	4	Record the installed position, terminal assignments, cable labels and system-dependent settings.
5	Use ESD controls and protect the board connectors and terminal interfaces from contamination.	6	Restore the documented PC D232 A arrangement without transferring settings from another unit.
7	Review I/O status and excitation-system diagnostics after controlled energization.	8	Complete a controlled functional test of affected input and output paths before service release.

Related Products on Apter Power

MODEL	SYSTEM ROLE	APTER POWER PAGE
PC	D230 UNITROL communication-control module	View PC page
3BHB003041R0101	UFC719AE01 I/O control board	View 3BHB003041R0101 page
PPC381	AE AC 800PEC control board	View PPC381 page
3BHE009319R0001	UNITROL assembly	View 3BHE009319R0001 page
3BHE021083R0101	power-electronics board	View 3BHE021083R0101 page
XVC772A102	3BHE032285R0102 control board	View XVC772A102 page
YPC111B	optical-distribution board	View YPC111B page
RMIO-11C	3AUA0000035408 control board	View RMIO-11C page

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