

# 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.

|       |                         |             |                                                               |
|-------|-------------------------|-------------|---------------------------------------------------------------|
| BRAND | ABB                     | FAMILY      | ABB UNITROL 6000 excitation-system spare-parts architecture   |
| PART  | 3BHE022293R0101 PCD232A | SYSTEM ROLE | Combines input and output handling in one documented CIO unit |

APTER POWER SALES  
TEAM

WHATSAPP / PHONE  
+86 180 3023 5313  
EMAIL sales13@apterp  
ower.com  
WEBSITE  
www.apterpower.com



3BHE022293R0101  
PCD232A

### MANUFACTURER SOURCE RECORD

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

# Product Overview

## SYSTEM FUNCTION

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

## System Components

| COMPONENT           | DOCUMENTED ROLE                                                                                                                                                                                                                          |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host / carrier      | ABB UNITROL 6000 excitation-system spare-parts architecture                                                                                                                                                                              |
| Primary interface   | Combines input and output handling in one documented CIO unit                                                                                                                                                                            |
| Engineering 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 duty  | Complete a controlled functional test of affected input and output paths before service release.                                                                                                                                         |

## 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.

# Technical Data

| 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 |                         |                  |

## Related Products on Apter Power

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

### 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.

# Applications and Precautions

## Common Applications

### 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.

## Product 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.

## 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.

| ACCEPTANCE CHECK   | REQUIRED EVIDENCE                                                                                |
|--------------------|--------------------------------------------------------------------------------------------------|
| Identity           | 3BHE022293R0101 PCD232A                                                                          |
| Configuration      | Review I/O status and excitation-system diagnostics after controlled energization.               |
| Functional release | Complete a controlled functional test of affected input and output paths before service release. |

# Engineer FAQ

## Q1 What identity details must be checked before 3BHE022293R0101 PCD232A is removed?

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.

## Q3 Which ABB UNITROL 6000 excitation-system spare-parts architecture interfaces must be recorded for 3BHE022293R0101 PCD232A?

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.

## Q5 How should the installed configuration be restored after fitting 3BHE022293R0101 PCD232A?

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

## Q7 What replacement records should be retained for 3BHE022293R0101 PCD232A?

Confirm the complete 3BHE022293R0101 PCD232A marking and PC D232 A PEC80-CIO type before work. Use ESD controls and protect the board connectors and terminal interfaces from contamination.

## Q2 How does 3BHE022293R0101 PCD232A perform its documented pc d232 a pec80-cio combined input/output unit role?

Combines input and output handling in one documented CIO unit. It provides the documented CIO role and uses system-dependent settings in the installed excitation-system configuration.

## Q4 What isolation and ESD controls apply while handling 3BHE022293R0101 PCD232A?

Place the UNITROL 6000 installation and connected plant equipment in the approved maintenance state. Isolate control power and connected field energy before disconnecting the CIO unit.

## Q6 Which diagnostic evidence confirms that 3BHE022293R0101 PCD232A is recognized correctly?

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

## Q8 What final acceptance test is required before 3BHE022293R0101 PCD232A returns to service?

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

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