3BHE022293R0101 PCD232A

PC D232 A PEC80-CIO Combined Input/Output Unit

INSTALLATION, INTERFACE AND VALIDATION WORKBOOK

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.

STEP	GATE	ENGINEERING PURPOSE
01	IDENTIFY	Confirm article, host and hardware
02	ISOLATE	Secure power and stored energy
03	CONNECT	Restore documented interfaces
04	VALIDATE	Prove diagnostics and function

WORKBOOK PURPOSE

Field-ready identity, isolation, connection, commissioning and closeout records for this exact ABB article.

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3BHE022293R0101
PCD232A

Installation Readiness Gate

Complete the identity, host-system and isolation checks before disturbing the installed hardware.

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.

Pre-Work Evidence

EVIDENCE ITEM	RECORDED VALUE
Complete article marking	3BHE022293R0101 PCD232A
Host / carrier	ABB UNITROL 6000 excitation-system spare-parts architecture
Primary system role	Combines input and output handling in one documented CIO unit
Acceptance boundary	Complete a controlled functional test of affected input and output paths before service release.
Source record	UNITROL 6000 spare parts included in the offer

WORK AUTHORIZATION RECORD

Work order: _____ Drawing / revision: _____
Checked by: _____ Date: _____

Isolation and Access Register

CONTROL POINT	ENGINEER RECORD
Incoming supply	Isolated / proved
Stored energy	Discharged / proved
Field connections	Identified / protected
ESD control	Established / recorded

Pre-Work Documentation

DOCUMENT	ENGINEER RECORD
Connection photograph	Reference / file
Configuration backup	Reference / revision
Diagnostic baseline	Reference / result

Connection and Installation Sequence

INSTALLATION PRINCIPLE

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.

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.

Connection Record

CONNECTION GROUP	AS-FOUND / AS-LEFT RECORD	STATUS
Power / field connection	Reference / terminal	Checked
Signal / interface	Reference / connector	Checked
Ground / shield	Reference / point	Checked
Accessory / carrier	Reference / part	Checked

MODEL-SPECIFIC RELEASE LIMIT

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.

Interface Acceptance Criteria

ACCEPTANCE ITEM	REQUIRED EVIDENCE
Identity	3BHE022293R0101 PCD232A
Host match	ABB UNITROL 6000 excitation-system spare-parts architecture
Connection proof	Restore the documented PC D232 A arrangement without transferring settings from another unit.
Configuration proof	Review I/O status and excitation-system diagnostics after controlled energization.

Commissioning and Acceptance Record

Record each controlled verification step before the equipment returns to automatic operation.

NO.	ACCEPTANCE CHECK	RESULT	RECORD
1	Article and host identity	PASS / FAIL	Initial / date
2	Mechanical installation	PASS / FAIL	Initial / date
3	Power and field wiring	PASS / FAIL	Initial / date
4	Grounding and shielding	PASS / FAIL	Initial / date
5	Configuration restoration	PASS / FAIL	Initial / date
6	Signal or power-path response	PASS / FAIL	Initial / date
7	Diagnostics and alarms	PASS / FAIL	Initial / date
8	Final functional release	PASS / FAIL	Initial / date

Engineering Notes

RECORD AREA	ENGINEER ENTRY
As-found condition	
Corrective action	
As-left configuration	
Outstanding restriction	
Release authorization	

CONTROLLED COMMISSIONING

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

Diagnostics and Release Log

EVENT	ENGINEERING RECORD
Initial energization	Result / observation
Interface or signal response	Result / observation
Alarm and diagnostic review	Result / observation
Functional release	Name / date

Maintenance Verification and Closeout

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.

Related Engineering Pages

MODEL	ENGINEERING ROLE	APTER POWER 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
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

MANUFACTURER SOURCE RECORD

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

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