

RPBA-01 3ABD64606859

PROFIBUS DP Adapter Module

ABB RPBA-01 3ABD64606859 is an optional PROFIBUS DP adapter module for ABB drives. It connects the installed drive as a slave to a PROFIBUS DP or DP-V1 control network.

BRAND	ABB	FAMILY	ABB drive PROFIBUS DP communication system
PART	RPBA-01 3ABD64606859	SYSTEM ROLE	Links an ABB drive to a PROFIBUS DP or DP-V1 master

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RPBA-01 3ABD64606859

MANUFACTURER SOURCE RECORD

RPBA-01 PROFIBUS DP Adapter Module User's Manual
ABB 3AFE64504215, Revision F

Product Overview

SYSTEM FUNCTION

ABB RPBA-01 3ABD64606859 is an optional PROFIBUS DP adapter module for ABB drives. It connects the installed drive as a slave to a PROFIBUS DP or DP-V1 control network.

FUNCTION 1

Links an ABB drive to a PROFIBUS DP or DP-V1 master

FUNCTION 2

Transfers drive control words, references, status and actual values

FUNCTION 3

Supports cyclic PPO communication and acyclic DP-V1 services

FUNCTION 4

Automatically detects the configured PROFIBUS transmission rate

System Components

COMPONENT	DOCUMENTED ROLE
Host / carrier	ABB drive PROFIBUS DP communication system
Primary interface	Links an ABB drive to a PROFIBUS DP or DP-V1 master
Engineering context	The adapter is mounted in the approved drive option slot and communicates with a compatible PROFIBUS DP master through the 9-pin D-sub port. Engineering work covers the selected GSD file, node address, PPO telegram, parameter mapping, cable shield, segment termination and controlled drive diagnostics.
Commissioning duty	Verify master recognition, cyclic I/O, acyclic access, drive diagnostics and a controlled run test.

TECHNICAL NOTE

Fit RPBA-01 only in the documented drive option slot and reproduce the recorded PROFIBUS address, PPO type, baud-rate detection, GSD and process-data mapping. De-energize the drive, wait for DC-link discharge, preserve bus termination and shield grounding, then verify cyclic and acyclic communication before drive enable.

Technical Data

PARAMETER	VALUE	PARAMETER	VALUE
Country of origin	Sweden	PROFIBUS connector	9-pin female D-sub
HS code	8537101190	Drive connection	34-pin parallel bus connector
Type designation	RPBA-01	Station address range	0 to 126
Manufacturer item number	3ABD64606859	Hardware address range	00 to 99
Supported fieldbus	PROFIBUS DP, PROFIBUS DP-V1	Supported PPO types	1 to 6
Network role	Slave	Maximum cyclic input data	28 bytes

Related Products on Apter Power

MODEL	SYSTEM ROLE	APTER POWER PAGE
YPC111B	optical distribution board	View YPC111B page
3BHB003041R0101	drive control board	View 3BHB003041R0101 page
ZINT-592	inverter main circuit board	View ZINT-592 page
ZCU-14	3AXD50000182992 control unit	View ZCU-14 page
ZCU-14	3AXD50000005164 control unit	View ZCU-14 page
XVC772A102	3BHE032285R0102 control board	View XVC772A102 page
NBRA-657C	braking chopper	View NBRA-657C page
RMIO-11C	3AUA0000035408 control board	View RMIO-11C page

ENGINEERING BOUNDARY

Confirm RPBA-01, 3ABD64606859, the installed ABB drive and option slot, adapter hardware version, 9-pin PROFIBUS connector, 34-pin drive connector, node address, PPO type, GSD, bus wiring and termination, shield grounding, drive firmware and parameters, and controlled communication and run-test results before commissioning.

Applications and Precautions

Common Applications

PROFIBUS-controlled motor drives

Connects a documented ABB drive to the plant PROFIBUS master for command and status exchange.

Drive parameter service over DP-V1

Supports authorized acyclic parameter access from a compatible engineering or control station.

Drive reference and actual-value transfer

Carries the approved speed or torque reference and corresponding process feedback.

Existing PROFIBUS drive replacement

Preserves node addressing, PPO mapping and bus-segment behavior during controlled drive service.

Product Precautions

- 1

Confirm RPBA-01 and manufacturer item number 3ABD64606859 before work.
- 2

Isolate the ABB drive and wait at least five minutes for DC-link discharge.
- 3

Use ESD controls and record the installed option slot, hardware revision and connector orientation.
- 4

Record the node address, selected GSD, PPO type and process-data mapping before removal.
- 5

Inspect the D-sub connector, 34-pin drive connector, shield and protective-ground arrangement.
- 6

Confirm termination is active only at the first and last station of the PROFIBUS segment.
- 7

Restore the approved drive parameters and network configuration before controlled energization.
- 8

Verify master recognition, cyclic I/O, acyclic access, drive diagnostics and a controlled run test.

IMPORTANT NOTICE

Confirm RPBA-01, 3ABD64606859, the installed ABB drive and option slot, adapter hardware version, 9-pin PROFIBUS connector, 34-pin drive connector, node address, PPO type, GSD, bus wiring and termination, shield grounding, drive firmware and parameters, and controlled communication and run-test results before commissioning.

ACCEPTANCE CHECK	REQUIRED EVIDENCE
Identity	RPBA-01 3ABD64606859
Configuration	Restore the approved drive parameters and network configuration before controlled energization.
Functional release	Verify master recognition, cyclic I/O, acyclic access, drive diagnostics and a controlled run test.

Engineer FAQ

Q1 Which ABB drives can use RPBA-01 3ABD64606859?

Use it only where the installed ABB drive documentation provides the compatible option slot and RPBA-01 support. Confirm the drive type, control-board execution, firmware and option-slot assignment before installation.

Q3 How is the station address set for RPBA-01 3ABD64606859?

Record the approved node assignment and reproduce it using the module address controls or the supported configuration method. The documented station address range is 0 to 126, while the rotary-switch range is 00 to 99.

Q5 How should PROFIBUS termination be checked for RPBA-01 3ABD64606859?

Termination must be active at the first and last station of the segment only. Confirm the connector termination switch, module power and shield grounding before enabling communications.

Q7 How is RPBA-01 3ABD64606859 commissioned after replacement?

Restore the approved drive and master configuration, confirm master recognition, compare cyclic input and output words, verify authorized acyclic access and review both drive and network diagnostics.

Q2 What network role does RPBA-01 3ABD64606859 perform?

It operates as a PROFIBUS DP slave and exchanges control, reference, status, actual-value and parameter data with a compatible PROFIBUS DP master.

Q4 Which GSD file should be used for RPBA-01 3ABD64606859?

Match the project to the communication mode documented for the installation: ABB_0812.GSD for DP-V0 or ABB10812.GSD for DP-V1, then verify the selected PPO and I/O mapping.

Q6 What should be recorded before replacing RPBA-01 3ABD64606859?

Record the drive and option slot, node address, GSD, PPO type, process-data map, cable routing, termination state, shield connection, hardware version and diagnostics.

Q8 Can RPBA-01 3ABD64606859 be moved to another PROFIBUS segment without verification?

No. Revalidate node uniqueness, baud-rate compatibility, cable length, termination, shield grounding, GSD, PPO mapping and the receiving control-system database before service.

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