ABB APOW-01C

Technical Reference and Engineering Data

ABB APOW-01C is a converter control power-supply board for the ABB ACS800-67 converter module architecture. The complete marking must be matched to the installed hardware, wiring and configuration before replacement.

01 Exact identity and system role

Complete model	APOW-01C
Product type	converter control power-supply board
Manufacturer	ABB
Technical source	ABB ACS800-67 Wind Turbine Converters Hardware Manual
Drawing position	A43
Positive control rail	+24 V DC
Negative control rail	-24 V DC
Auxiliary control rail	+12 V DC
Permitted protection-board combination	NRED-16

System position

APOW-01C occupies the ACS800-67 A43 control-power position and provides the documented +24 V DC, -24 V DC and +12 V DC rails with the permitted NRED-16 protection arrangement.

Lifecycle and installed-base context

Exact board phase	A current manufacturing or support phase for the APOW-01C board has not been separately established.
Converter support	Support planning must retain the A43 position, NRED-16 protection-board combination and the installed +24 V, -24 V and +12 V control-rail map.
Supply boundary	Apter Power availability applies to the offered APOW-01C board and does not establish ACS800-67 converter lifecycle status.

02 Verified technical data

Drawing position	A43
Positive control rail	+24 V DC
Negative control rail	-24 V DC

Additional engineering data

Auxiliary control rail	+12 V DC
Permitted protection-board combination	NRED-16

Applicability boundary

The exact board role and converter relationships are identified in the ABB hardware manual. Board-level electrical values not stated by ABB are not inferred.

03 Integration and engineering interpretation

Converter control-power generation

Supply documented internal low-voltage rails to control electronics.

RMIO support

Provide control power in approved converter circuit arrangements.

Protection-board coordination

Operate only with the permitted companion-board combination.

Power-rail diagnostics

Isolate input, board and downstream-load causes of control-power faults.

Technical notes

Rail relationship	Verify the A43 installation and the +24 V DC, -24 V DC and +12 V DC rail assignments before connecting control loads.

Protection relationship	Use the documented NRED-16 combination, inspect the harness polarity and prove each unloaded and loaded rail before converter release.
Technical reference	ABB ACS800-67 Wind Turbine Converters Hardware Manual.

Interpretation boundaries

Probe-only limit	Do not present complete-system range, scale or linearity as a standalone output of APOW-01C.
Target influence	Material, geometry, finish and nearby conductive surfaces can change the installed response.
Length influence	Probe lead and extension cable form part of the calibrated electrical relationship.
Temperature influence	Apply component temperature limits at their actual locations and compare with process transients.
Mechanical influence	Thread engagement, rigidity, target travel and cable support affect repeatability and service life.
Acceptance rule	Use the approved machine baseline and maintenance procedure for the final as-left decision.

04 Diagnostic decisions and support record

How should the output rails of APOW-01C be checked?	Use the exact converter circuit diagram and approved test points to verify +24 V, -24 V and +12 V rails under controlled load.
Why must the protection-board identity be recorded with APOW-01C?	ABB documents permitted combinations; fitting a different supply without its matched protection board is not a like-for-like replacement.
What should be checked if one APOW-01C rail collapses under load?	Inspect the corresponding connector, downstream load, short circuit, input path and board components before replacing another control board.
What proves APOW-01C is ready for converter service?	Stable control rails, normal RMIO or control-board diagnostics and an approved converter-ready sequence are required before power-stage enable.
What evidence should be recorded before replacing APOW-01C?	Capture the complete nameplate, installed slot or mounting position, companion hardware, wiring identifiers and the accepted operating baseline for the converter control power-supply board.
How should an intermittent fault around APOW-01C be isolated?	Separate field wiring, connector, supply, grounding, configuration and host-system causes. Reproduce the symptom under a controlled test and change only one variable at a time.
What configuration evidence should be retained after commissioning APOW-01C?	Retain the hardware identity, firmware or parameter record where applicable, channel assignment, as-left measurements, alarm or diagnostic state and the approved functional-test result.
When should APOW-01C be rejected during incoming inspection?	Quarantine the item if the complete marking, connector keying, board revision, protective coating, terminal condition or required companion hardware differs from the approved replacement record.

Verified source

ABB ACS800-67 Wind Turbine Converters Hardware Manual

Related product references

Related product	BCU-12 3AUA0000110430
Related product	ZINT-571 3AUA0000077333
Related product	CI858K01 3BSE018135R1
Related product	PM511V16 3BSE011181R1

Engineering contact

Discuss the exact marking and installed application with Apter Power.
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Acceptance evidence package

Nameplate evidence	Overall and close photographs showing APOW-01C, revision, approval and serial details where present.
Installation evidence	Views of the rack position, mechanical datum, terminal assignment, cable route and strain relief.
Configuration evidence	Export or screenshots identifying the approved hardware assignment and parameters without exposing credentials.

Baseline evidence	As-found readings with units, test conditions, machine state and the instrument used.
Inspection evidence	Connector, contact, insulation, fastener, contamination and heat-condition observations.
Functional evidence	As-left readings and the controlled input, output or channel response used for acceptance.
Change evidence	Any wiring, setting, firmware or mechanical change linked to its approved work reference.
Release evidence	Technician, reviewer, date, asset reference and the maintenance-record location for traceability.

Controlled acceptance sequence

01 Isolate	Place the monitored machine and channel in the approved maintenance state; prove the required isolation.
02 Photograph	Capture APOW-01C, the installed datum, connector, route and companion-component markings.
03 Measure	Record mechanical position and the applicable stopped-machine electrical reading before removal.
04 Compare	Check delivered identity, interfaces and evidence against the approved drawing and spare-parts record.
05 Install	Fit without twisting the lead; preserve thread engagement, target clearance, bend radius and strain relief.
06 Set point	Establish the operating gap or datum only with the approved stopped-machine procedure.
07 Prove	Compare local reading, monitor indication and controlled operating response with the accepted baseline.
08 Handover	Record as-left values, photographs, deviations, responsible technician and release approval.

Evidence quality controls

Traceability	Each value is tied to APOW-01C, the asset location, test state, instrument and date.
Repeatability	The same approved method and comparable operating state are used for before-and-after readings.
Resolution	Recorded precision does not exceed the capability of the instrument or source document.
Reference state	Stopped, energized, loaded and process-running observations are clearly distinguished.
Change control	Every changed setting, connection or mechanical datum has an approved reason and reviewer.
Retention	Evidence remains accessible with the maintenance record for future troubleshooting and replacement review.