

MANUFACTURER-SOURCE TECHNICAL REFERENCE

ABB RDCU-12C-3AUA0000036521

Product Reference

ACS800 drive control unit containing an RMIO-12C motor-control and I/O board

DOCUMENT SCOPE

Independent Apter Power manual compiled only from the cited ABB manufacturer sources. No product photograph is included.

Product / lookup identity	ABB RDCU-12C-3AUA0000036521
Reference number	3AUA0000036521
Document basis	Published ABB product records, PDFs, and manuals listed on page 3

**Product page**

<https://www.apterpower.com/ABB/rdcu-12c-3aua0000036521>
Apter Power contact

sales13@apterpower.com | +86 180 3023 5313

Product role and published parameters

WHAT IT IS, WHAT IT DOES, AND WHERE IT FITS

ABB RDCU-12C is an ACS800 drive control unit built around the RMIO-12C motor-control and I/O board. It accepts three analogue inputs, six programmable 24 V digital inputs plus a start-interlock input, and provides two analogue outputs and three relay outputs for external control and status signals. The unit connects optically to the inverter or IGBT-supply power section over ABB PPCS and can host documented I/O, pulse-encoder, fieldbus and DDCS options together with a CDP-312R control panel. It supports motor, inverter and external process-I/O control in compatible ACS800 systems, including a documented grid-side converter role in ACS800-67LC equipment. ABB directly verifies programmed code 3AUA0000036521P; the requested unsuffixed code requires label confirmation.

Published field	Manufacturer-published value or verified identity note
Product type	ACS800 drive control unit
Contained control board	RMIO-12C motor-control and I/O board
Supply input	+24 V DC $\pm 10\%$; 250 mA typical without options, 1200 mA maximum with options
Analogue inputs	3: two differential current inputs and one differential voltage input
Analogue outputs	2 programmable 0/4 to 20 mA outputs
Digital inputs	6 programmable 24 V inputs plus DIIL start interlock
Relay outputs	3

System function and signal path

01	External analogue inputs, programmable digital inputs and the DIIL start-interlock signal enter the RMIO-12C motor-control and I/O board inside RDCU-12C.
02	The loaded ACS800 application program processes those control and feedback signals according to the matched converter configuration.
03	RDCU-12C exchanges control data with the inverter or IGBT-supply power section over ABB's 10 MBd PPCS optical-fibre link.
04	Two analogue outputs and three relay outputs return documented command, indication or status interfaces to external equipment.

Applications, answers, and official sources

- 1 Motor and inverter control in compatible ACS800 variable-speed drive systems
- 2 External analogue and digital process/control signal interfacing for ACS800 drives
- 3 Encoder-feedback integration when a documented RTAC option module is fitted
- 4 Fieldbus or DDCS integration through documented option modules where supported

Frequently asked questions

What is ABB RDCU-12C?	It is an ACS800 drive control unit that contains the RMIO-12C motor-control and I/O board.
What supply does RDCU-12C require?	It requires +24 V DC $\pm 10\%$. ABB gives a typical current of 250 mA without options and a maximum of 1200 mA with options.
How many analogue signals can it handle?	It has three analogue inputs: two programmable differential current inputs and one programmable differential voltage input. It also has two programmable 0/4 to 20 mA analogue outputs.
How many digital and relay channels are provided?	The control unit provides six programmable 24 V digital inputs, one DIIL start-interlock input and three relay outputs.
How does RDCU-12C communicate with the power section?	It uses ABB's 10 MBd PPCS protocol over an optical-fibre link to the inverter or IGBT-supply module.
Which option modules can be installed?	ABB documents RAIO and RDIO I/O modules, RTAC pulse-encoder modules, RPBA or RMBA fieldbus modules where supported, and an RDCO DDCS communication option.

Official ABB sources

ABB product page: 3AUA0000036521P RDCU-12C Control Board - Programmed	https://www.abb.com/global/en/products/3aua0000036521p
RDCU-02C, RDCU-12C and RDCU-16C Drive Control Units Hardware Manual, Rev C	https://library.e.abb.com/public/c23045e0f662a9ddc12574ce0045ed3f/EN_RDCU_HW_C.pdf
ACS800-67LC Wind Turbine Converters Hardware Manual	https://library.e.abb.com/public/4ea69db0f352467a94ff0d77604d674d/EN_ACS800-67LC_HW_C_A4.pdf
ACS800-04/04M/U4 Drive Modules Hardware Manual	https://library.e.abb.com/public/372c56e182ce42fbabdb886bd8e3cd47/EN_ACS800_04_R7_R8_HW_G_A4.pdf