



## Features



- One 19" rack unit (110/220V AC Powered)
- Up to 6 EASY6000 crates controlled (back compatible with EASY3000)
- CAN-Bus based protocol
- Web tool for EASY crates configuration
- Local control, via external screen and keyboard/mouse
- Remote control, via TCP/IP
- Fast communication speed

## Description

EASY is the CAEN power supply solution for operation in magnetic field and radioactive environment. CAEN has developed different solutions for the main LHC experiments, where the electronic equipment of the experiment is dealing with high dose radiation and intense magnetic field.

To provide safe and reliable operations in such hostile areas, CAEN started tests with rad-tolerant components and magnetic field resistant solutions, patenting the technology that is used in this line of products, where the power supply can be located directly in the hostile area, providing a wide variety of output voltages to satisfy the requirements of most detectors and front-end electronics.

The **R6060 EASY Branch Controller** is an independent module that fits in a single rack unit. Conforming to standard 19" rack mechanics, the R6060 offers a reliable, high-performance, all-in-one solution which features fast communication speeds while eliminating the need for accessory CAEN HV Mainframes. The R6060 functions as an interface between the detector control system and the CAEN EASY boards, and is compatible with both the new EASY6000 family of boards as well as the previous EASY3000 generation. The unit features a powerful web tool, designed to configure EASY crates. A single R6060 can control up to six **EASY6000/3000 crates**, and all EASY Channels can be configured and controlled directly via the Branch Controller. Unit control can take place either locally, via external screen and mouse/keyboard connected to the serial ports, or remotely, via TCP/IP protocol, on the Ethernet port.

Safety features allows the module to perform as a current generator and includes:

**Safety keys:** Safety keys to switch it ON.

**Safety Board Interlock:** via front panel LEMO connector.

## Technical Specifications

### Mechanical

Form Factor: 1-U, 19" rack (depth: 180mm). Weight: 3.6kg

### Control Signals

**HVCK:** 625 kHz synchronisation signal (one per branch) for switching parts of remote PS channel boards; however, if this signal fails, remote boards run properly (a synchronisation signal is generated by their controller), though lose synchronisation between each other, and an error message ("Fail") is returned. The HVCK presence is reported by the remote board parameter "HVSync" (Ok or Fail).

**SYNC:** 50 Hz clock (one per branch) for the board controllers synchronisation; if this signal fails, remote boards do not operate and an error message ("Fail") is returned. To remove the Fail message, it is necessary to send the "Clear Alarm" command.

**DATA:** Communication data line.

**RESET:** Recovery / Reset lines, one for each remote EASY3000 crate; it is possible to send a command to the controllers of a remote crate either switching off all the channels in the crate (HW Reset) or eventually leaving them on, if they were (Recovery).

**48V Service** ±48V DC output (350W max) for remote EASY crates

### No. of controlled crates

6

### Connectivity

- Local control: serial ports for external screen and keyboard/mouse
- Remote control: Ethernet port

### Environmental

Installation: Indoor use

Operating Temperature: -20 °C ÷ 50 °C

Operating Humidity: 25% ÷ 95% RH non condensing

Storage Temperature: 5% ÷ 90% RH non condensing

Altitude: ≤ 2000 m

Pollution Degree: 2

Overvoltage Category: II

EMC Environment: Commercial and light industrial

IP Degree: IPX0 enclosure, not for wet location

### Regulatory Compliance

EMC: CE 2014/30/EU Electromagnetic compatibility

Directive Safety: CE 2014/35/EU Low Voltage Directive

RoHS compliant

**Ordering Options**

Code	Description
WR6060CXAAA	R6060C - EASY 6000/3000 Branch Controller (up to 6 EASY crates controlled) <span data-bbox="1428 197 1476 224">RoHS</span>

**Related Products**

**EASY3000**



Crate for EASY3000 Power Supply System for Hostile Area

**EASY3000B**



Crate for EASY3000 System for Hostile Area with Bolt Connectors

**EASY3000S**



Front Access Crate for EASY3000 System for Hostile Area



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