

## A2605BS

High stability 5 A 10 V Bipolar Current Power Supply



## HIGHLIGHTS

## FEATURE

## BENEFIT

Especially designed for particle accelerator facilities

Completely digital controlled feedback loop

Extremely configurable and adaptable to any load condition  
Up to 90 % DC/DC power conversion efficiency

High precision shunt resistor

Extreme reliability and extreme stability for 24-hour, 365-days a year operation

Each power supply channel has an Ethernet 10/100 link

Remote and fast communication

Each power supply channel is equipped with LED monitors

Straightforward troubleshooting

Modular architecture

User can substitute only a faulty board

Storage of configuration and calibration parameters in a non-volatile memory on the Power Board

Extremely quick and simple, even for inexperienced users, to replace a faulty module with a functional equivalent

## APPLICATIONS

- Particle accelerator facilities
- Medical equipment (resonance imaging)
- Systems with high resolution current or voltage source requirements

## HOW DOES IT WORK?

The highly stable and reliable power supply system can house up to four independent bipolar modules in a standard 19-inch 3U crate. This true-bipolar system has a modular architecture and comprises a bulk AC/DC converter (A2607), an auxiliary power supply (A2606) and the DC/DC modules (A2605BS).

The A2606 auxiliary power module provides the auxiliary voltage to the DC/DC converter boards installed in the crates in order to supply the control electronics while the A2607 bulk unit feeds the power part for energy conversion.

The system is composed of EuroCard standard boards (12TE for the A2605BS, 14TE each for the A2606 and the A2607 modules).

The A2605BS modules are provided with two independent Digital Signal Processors supervising all processes including remote control of the power supply via an Ethernet connection (TCP-IP or UDP). Each power supply also has LED monitors for troubleshooting and an Ethernet 100-100 auto-sensing socket for communication.

Cooling is performed by forced air convection. The fan unit is placed directly under the system rack.

## SPECIFICATIONS

<b>Output Current Range</b>	± 5 A
<b>Output Current Resolution</b>	160 µA
<b>Output Voltage Range</b>	± 10 V
<b>DC/DC efficiency (at full load)</b>	> 90%
<b>Input Voltage</b>	2 x 90/260 V AC (47/63 Hz)
<b>External Interlocks</b>	Magn. fault (inp); PS status (out)
<b>Internal Interlocks</b>	Under voltage (inp); over temp. (inp)
<b>Bandwidth-3dB(@2Ωload)</b>	1.5 KHz
<b>Accuracy</b>	0.05%
<b>Long Term Stability</b>	± 25 ppm /FS (> 8 hrs)
<b>Max Ripple</b>	30 ppm (on resistive load)
<b>Ethernet 10/100</b>	TCP-IP or UDP Protocol
<b>Data transfer</b>	Up to 1 Mbit/s
<b>Drivers</b>	EPICS, TANGO
<b>Dimensions</b>	19" wide, 3U rack

## DELIVERABLES

- Power supply unit: up to 4 independent current modules combined with an auxiliary power supply module housed in a standard 19-inch 3U crate
- A2607 bulk AC/DC
- External fan unit for air convection cooling
- Software and drivers are available for different operating systems such as MS Windows, Linux, Mac OS X
- EPICS and TANGO drivers

## Contact us!

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