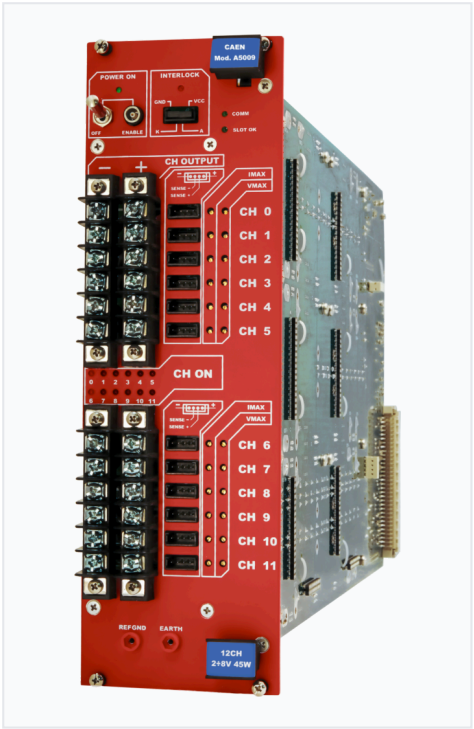
A5009

12 Channel 8 V / 9.3 A / 45 W Power Supply Board

12	APP30	5
No. of Channels	Connectors	No. max of boards per crate

The A5009 is a 12-channel EASY subsystem power supply board for operation in magnetic fields and moderate radioactive environments. It provides twelve floating positive-polarity channels, each adjustable from 1.5 ÷ 8 V and rated at 9.3 A with 45 W maximum output power. Channels use APP30 type 1317G4 connectors and feature individual on/off control, protection, VMax and IMax trimmers, 5 mV monitor resolution, remote-sensing voltage-drop compensation and interlock capability. A 48 V service input supports local and remote on/off.



CAEN
Tools for Discovery

Overview

Product Highlights

- EASY Subsystem Power Supply Module
- 12 floating 1.5 ÷ 8 V / 9.3 A channels (positive polarity)
- 45 W maximum output power per channel
- On/Off for each channel
- Voltage Drop compensation via sense wires
- 48 V Service local and remote on/off
- Magnetic field and radiation tolerant
- APP30 connectors
- VMax and IMax set by trimmer for each channel
- Channels individually controlled and protected
- Interlock capability

Product Description

The CAEN Mod. A5009 is a 12 Channel 8 V / 9.3 A Power Supply Board, developed for operation in magnetic field and moderate radioactive environment. Each A5009 houses twelve positive channels, each rated 8 V / 9.3 A with a maximum output power of 45 W. The output voltage range at the connector is 1.5 ÷ 8 V, with 5 mV monitor resolution, and channel control includes various alarms and protections. A hardware limit of 11.8 V ± 0.1 V is available on request.

The board is provided with Remote Sensing Lines that compensate for the voltage drop over the connection cables.

The A5009 uses an APP30 connector, type 1317G4. For further technical details, please refer to our connectors reference page.

Its safety features allow the module to perform as a current generator. All channels can be enabled or disabled through the Global Interlock logic. An Overvoltage or Undervoltage warning is issued when the output voltage differs from the programmed value by more than 3% of the voltage full scale range.

When a channel attempts to exceed the programmed current limit, Overcurrent detection signals it as being in “overcurrent” and puts it into TRIP status. The output voltage is then varied to keep the current below the programmed limit for a programmable TRIP time, after which the channel is switched off. If TRIP is set to “constant current mode”, the channel behaves like a current generator.

Finally, the Hardware VMAX and IMAX values, which set the maximum output voltage and the maximum current, can be fixed via software with 5 mV resolution, and the output voltage cannot be programmed beyond this value.

AT A GLANCE	
No. of Channels	**12**
Connectors	**APP30**
No. max of boards per crate	**5**
Width (slots)	**4**
Max power per channels	**45 W**
Iset/Imon resolution	**10 mA**

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Technical Specifications

No. of Channels	12, APP30 connectors
Polarity	Positive; full floating (return individually insulated with respect to earth)
Output Voltage	1.5 ÷ 9.3 V (connector output)
Max. Output Current	9.3 A
Voltage Set/Monitor Resolution	5 mV
Current Set/Monitor Resolution	10 mA
VMAX hardware	1.5 ÷ 9.3 V
VMAX software	1.5 ÷ 9.3 V
VMAX software resolution	5 mV
Ramp Up	from 0.1 V/s to 400 V/s with 0.1 V/s steps
Voltage Ripple	<20 mV pp on 10 µF // 0.1 µF 10 Hz-15 MHz
Voltage Monitor vs. Output Voltage Accuracy	max. ±30 mV ±0.3% of reading
Voltage Set vs. Output Voltage Accuracy	max. ±30 mV ±0.3% of reading
Current Monitor vs. Output Current Accuracy	± 0.05A ± 2% of reading
Current Set vs. Output Current Accuracy	± 0.05A ± 2% of reading
Load Regulation	± 0.3 % (with sense wires) ± 2 % (without sense wires)
Output Power (per Channel)	45 W

Ordering Information

ORDERING CODE	DESCRIPTION
WE5009XAAAAA	A5009 – EASY5000 L.V. channels 8V / 9A / 45W floating – APP Conn. (12 ch)

1. Ordering codes and descriptions are reproduced from the product record. Availability is confirmed at order entry.

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