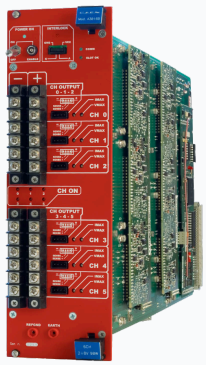
A3016B

6 Channel 8 V / 16 A / 90 W Power Supply Board

6	Brass hexagon head bolt	5
No. of Channels	Connectors	No. max of boards per crate

The A3016B is a six-channel EASY subsystem power supply board for operation in magnetic fields and moderate radioactive environments. It provides six floating, reversible-polarity channels rated 1.5 ÷ 8 V / 16 A, with 90 W maximum output power per channel and 2 ÷ 8 V at the connector. Each channel has individually adjustable VMax and IMax, 5 mV monitor resolution, on/off control, remote sensing, alarms and protections. Outputs use screw-lock connectors; global interlock, 48 V service local and remote on/off, and constant-current operation are supported.



CAEN
Tools for Discovery

Overview

Product Highlights

- EASY Subsystem Power Supply Module
- 6 floating 1.5 ÷ 8 V / 16 A channels
- VMax and IMax set by trimmer for each channel
- Channels individually controlled and protected
- 48 V Service local and remote on/off
- Magnetic field and radiation tolerant
- 90 W maximum output power per channel
- On/Off for each channel
- Interlock capability
- Screw Lock output connectors

Product Description

The CAEN Mod. A3016B is a 6 Channel 8 V / 16 A Power Supply Board, developed for operation in magnetic field and moderate radioactive environment. Each A3016B houses six floating channels with reversible polarity, each rated 8 V / 16 A with a maximum output power of 90 W. The output voltage range at the connector is 2 ÷ 8 V, with 5 mV monitor resolution, and channel control includes various alarms and protections.

The outputs are available on a screw lock connector, a right-angle 64-position header with 2.54 mm pitch dedicated to the Mod. A3016B. For further technical details, please refer to our connectors reference page.

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

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	**6**
Connectors	**Brass hexagon head bolt**
No. max of boards per crate	**5**
Width (slots)	**4**
Max power per channels	**90 W**
Iset/Imon resolution	**10 mA**

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Technical Specifications

No. of Channels	6
Polarity	Reversible
Output Voltage	2 ÷ 8 V (connector output)
Max. Output Current	16 A
Voltage Set/Monitor Resolution	10 mV
Current Set/Monitor Resolution	10 mA
VMAX hardware	2 ÷ 8 V
VMAX software	2 ÷ 8 V
VMAX software resolution	10 m V
Voltage Ripple	<20 mV pp on 10 µF // 0.1 µF 10Hz-15MHz
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)	90 W

Test Set Up

- cable: length = 20~30m; diameter = 10mm (for both output and return) with sense wires connected
- test load: 250÷2000 W (nominal)
- load capacitance: 100 µF electrolytic // 100 nF ceramic (// to the load)

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Ordering Information

ORDERING CODE	DESCRIPTION
WE3016BXAAAA	A3016B – EASY3000 L.V. channels 8 V/9 A/90 W floating – Screw Conn. (6 ch)

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

Related Products

A3006 — 4 Positive and 2 Negative Ch 16 V / 6 A / 90 W Power Supply Board

A3050 — 2 Channel 8 V / 50 A / 300 W Power Supply Board

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