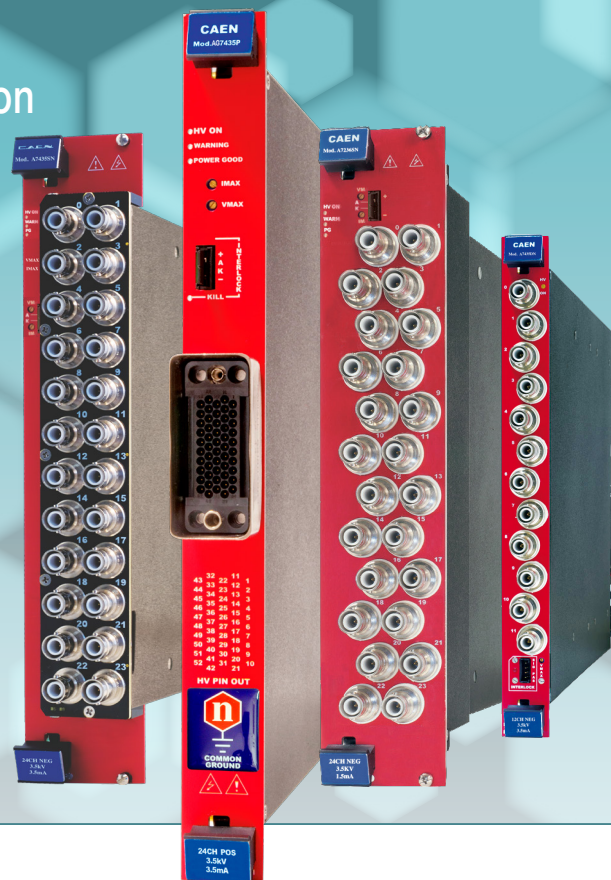# A7236 / AG7236
A7435 / AG7435

General Purpose High Power & High Resolution Power Supplies

No more compromise! High power and high resolution in a single board

Features

- 12/24/32 independently controllable HV channels
- 0 ÷ 3.5 kV output voltage
- 4 models available:
  - AG7236/AG7435 (Common Ground)
  - A7236/A7435 (Common Floating Return)
- A7236/AG7236 Dual range current:
  - High Power: 0 ÷ 1.5 mA, (Imon res.: 5 nA)
  - High resolution: 0 ÷ 150 µA, (Imon res.: 500 pA)
- A7435/AG7435 Dual range current:
  - High Power: 0 ÷ 3.5 mA, (Imon res.: 10 nA)
  - High resolution: 0 ÷ 350 µA, (Imon res.: 1 nA)
- Radiall 52 pin or SHV connectors
- Available with positive or negative polarity
- 5 mV voltage set and monitor resolution
- Low Ripple
- 500 pA current monitor resolution
- Independently programmable for each channel:
  - Output voltage (5 mV resolution)
  - Current limit (10 nA resolution)
  - Ramp up/down (1 ÷ 500 V/s)
  - TRIP parameter

This new pair of CAEN general purpose power supplies will provide you with tremendous power and resolution performance at a cost effective price! You will never have to compromise again.

The x7235 and x7236 house 32, 24 or 12 independent high voltage channels available with either positive or negative polarity compatible with CAEN Universal Multichannel Power Supply Systems (SY1527, SY2527, SY4527, SY5527).

CAEN provides 2 different channel grounding:: Common Ground (AG7236/AG7435) for standard applications, and Common Floating Return (A7236/A7435 - on-detector grounding) suitable for applications with more stringent noise requirements.The floating return is insulated from the crate earth up to ±25 V.

The boards are available in different versions equipped with SHV or Radiall Multipin connector.

The output voltage range is 0 ÷ 3.5 kV, with 5 mV of set and monitor resolution.

The output channels offer dual current ranges (software selectable).

- A7236/AG7236 Dual range current:
    - High Power (4 W max.): 0 ÷ 1.5 mA, (Imon resolution: 5 nA)
    - High resolution: 0 ÷ 150 µA, (Imon resolution: 500 pA)

- A7435/AG7435 Dual range current:
    - High Power (9 W max.): 0 ÷ 3.5 mA, (Imon resolution: 10 nA)
    - High resolution: 0 ÷ 350 µA, (Imon resolution: 1 nA)

Independently programmable for each channel:
- Output voltage: 0 ÷ 3.5 kV   step: 5 mV
- Current limit: 0 ÷ 1.5 / 0.15 mA step: 10 nA
                            0 ÷ 3.5 / 0.35 mA step: 10 nA
- HV Ramp up/down: 1 ÷ 500 V/sec   step: 1 V/sec
- TRIP parameter

Safety features include:
- **Channels can be enabled or disabled** through the Global Interlock logic.
- **Overvoltage and Undervoltage warning** when the output voltage differs from the programmed value.
- **Overcurrent detection**: when a channel attempts to exceed the programmed current limit, it signaled to be in "overcurrent" and enter in a TRIP status. The output voltage is varied to keep the current below the programmed limit for a programmable TRIP time, then the channel is switched off. If TRIP is set to "constant current mode", the channel behaves like a current generator.
- **Hardware VMAX and IMAX:** maximum output voltage and maximum current value can be fixed, via front panel potentiometer, at the same common value for all the board channels. IMAX and VMAX values can be read out via software.
- **Safety Board Interlock:** this protection disables the HV generation when the HV outputs are not connected to their loads (only for Multipin Connector versions).

Universal Multichannel System - Mainframes

Modularity, Compatibility, Connectivity, Usability and Solidity are the keywords of the system design. The Mainframes have been specifically designed to power all detector technologies found in modern Physics Experiments, such as photomultipliers, wire chambers, streamers tubes, silicon detectors and others.

The systems are modular, flexible and match not only the requirements of major experiments with large number of channels but also the practical needs of test laboratories, where simple manual operations on a limited number of channels are often desired.

FREE DOWNLOAD

All CAEN Control Software are available for *free download* on the web site.

Control Software available: GECO2020 with user friendly GUI, CAEN HV Wrapper library for custom SW development and HiVoCS Web Interface. EPICS and OPC Server also supported.

Model Compare

Model	Max Output V (kV)	Maximum Current	Vset / Vmon Resolution (mV)	Iset / Imon Resolution	N. of Channels	Grounding
A7236	3.5	1.5mA / 150 µA selectable	5	Iset: 10 nA Imon: 5 nA / 500 pA	12 / 24 / 32	Common Floating Return
AG7236	3.5	1.5mA / 150 µA selectable	5	Iset: 10 nA Imon: 5 nA / 500 pA	12 / 24 / 32	Common Ground
A7435	3.5	3.5mA / 350 µA selectable	5	Iset: 10 nA Imon: 10 nA / 1 nA	12 / 24	Common Floating Return
AG7435	3.5	3.5mA / 350 µA selectable	5	Iset: 10 nA Imon: 10 nA / 1 nA	12 / 24	Common Ground

S = Single width (5 TE wide)
D = Double width (10 TE wide)

Ordering Option - Mod A7236

Code	Description	S/D
WA7236DNXAA1	A7236DN - SYx527 H.V. channels -3.5KV 1.5mA (4W) - SHV Conn. common floating (12ch)	S
WA7236DPXAA1	A7236DP - SYx527 H.V. channels +3.5KV 1.5mA (4W) - SHV Conn. common floating (12ch)	S
WA7236NXAAA3	A7236N - SYx527 H.V. channels -3.5KV 1.5mA (4W) -Multipin Conn. common floating (32ch)	S
WA7236PXAAA3	A7236P - SYx527 H.V. channels +3.5KV 1.5mA (4W) -Multipin Conn. common floating (32ch)	S
WA7236SNXAA2	A7236SN - SYx527 H.V. channels -3.5KV 1.5mA (4W) common floating (24ch, 10TE)	D
WA7236SPXAA2	A7236SP - SYx527 H.V. channels +3.5KV 1.5mA (4W) common floating (24ch, 10TE)	D

Ordering Option - Mod AG7236

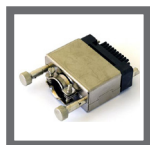| Code	Description	S/D
WAG7236DNXA1	AG7236DN - SYx527 H.V. channels -3.5kV 1.5mA (4W)- SHV Conn. common ground (12 ch)	S
WAG7236DPXA1	AG7236DP - SYx527 H.V. channels +3.5kV 1.5mA (4W)- SHV Conn. common ground (12 ch)	S
WAG7236NXAA3	AG7236N - SYx527 H.V. channels -3.5kV 1.5mA (4W) - Multipin Conn. common ground (32 ch)	S
WAG7236PXAA3	AG7236P - SYx527 H.V. channels +3.5kV 1.5mA (4W) - Multipin Conn. common ground (32 ch)	S
WAG7236SNXA2	AG7236SN - SYx527 H.V. channels -3.5kV 1.5mA (4W)- SHV Conn. common ground (24 ch, 10TE)	D
WAG7236SPXA2	AG7236SP - SYx527 H.V. channels +3.5kV 1.5mA (4W)- SHV Conn. common ground (24 ch, 10TE)	D

Ordering Option - Mod A7435

Code	Description	S/D
WA7435DNXAA1	A7435DN - SYx527 H.V. channels -3.5kV 3.5mA (9W) - SHV Conn. common floating (12 ch)	S
WA7435DPXAA1	A7435DP - SYx527 H.V. channels +3.5kV 3.5mA (9W) - SHV Conn. common floating (12 ch)	S
WA7435NXAAA2	A7435N - SYx527 H.V. channels -3.5kV 3.5mA (9W) - Multipin Conn. common floating (24 ch)	S
WA7435PXAAA2	A7435P - SYx527 H.V. channels +3.5kV 3.5mA (9W) - Multipin Conn. common floating (24 ch)	S
WA7435SNXAA2	A7435SN - SYx527 H.V. channels -3.5kV 3.5mA (9W) - SHV Conn. common floating (24 ch,10TE)	D
WA7435SPXAA2	A7435SP - SYx527 H.V. channels +3.5kV 3.5mA (9W) - SHV Conn. common floating (24 ch,10TE)	D

Ordering Option - Mod AG7435

Code	Description	S/D
WAG7435DNXA1	AG7435DN - SYx527 H.V. channels -3.5kV 3.5mA (9W) SHV Conn. common ground (12 ch)	S
WAG7435DPXA1	AG7435DP - SYx527 H.V. channels +3.5kV 3.5mA (9W) SHV Conn. common ground (12 ch)	S
WAG7435NXAA2	AG7435N - SYx527 H.V. channels -3.5kV 3.5mA (9W) - Multipin Conn. common ground (24 ch)	S
WAG7435PXAA2	AG7435P - SYx527 H.V. channels +3.5kV 3.5mA (9W) - Multipin Conn. common ground (24 ch)	S
WAG7435SNXA2	AG7435SN - SYx527 H.V. channels -3.5kV 3.5mA (9W) SHV Conn. common ground (24 ch, 10TE)	D
WAG7435SPXA2	AG7435SP - SYx527 H.V. channels +3.5kV 3.5mA (9W) SHV Conn. common ground (24 ch, 10TE)	D

For boards with Radiall 52 pin connector are available the following accessories:

· **Mate cable connector** (Mod. A996) **and relevant insertion/ extraction tool** (Mod. A995)
· **32 Channel Radiall Multipin to SHV Adapter** (Mod. A649 - R649)
· **24 Channel Radiall Multipin to SHV Adapter** (Mod. A647 - R647)

R649 Multipin to SHV Rack Mountable Adapter housed in a 19" rack module

Insertion - extraction tool
The CAEN Mod. A995 Insertion/Extraction Tool allows to either insert or remove the pin contacts from the 52 Pin HV cable connector

52 pin cable connector
The CAEN Mod. A996 is the 52 Pin HV cable connector designed to be used with the CAEN boards featuring the Multipin connector Radiall 691803004 type

News from Catalog web page
www.caen.it/news

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