DT8034H

8 Channel 6 kV/ 20 µA Desktop Power Supply Module (USB/Ethernet/Touchscreen)

Features

- 8 independent channels in a Desktop case (110/220V AC Powered)
- 6 kV / 20 µA output range
- Channels with either positive or negative polarity
- SHV coaxial output connectors
- Low Ripple
- Under/over-voltage alert, overcurrent and max. voltage protection
- Interlock logic for board enable and Individual channel kill
- 100 pA Current monitor resolution (with x10 Imon-Zoom: 10 pA)
- 2.8" color touch screen display
- Local and Remote control (USB2.0/Ethernet)
- Software Tools for easy channel management

Description

The CAEN **Mod. DT8034H** provides **8** independent 6 kV/ 20 µA channels in a desktop package (110/220V AC Powered). Each channel can provide a **6 kV** max voltage and a **20 µA** max current. The unit is available with positive, negative and "mixed" (4 positive and 4 negative) channels.

Channels outputs are delivered through SHV connectors. The HV output RAMP-UP and RAMP-DOWN rates may be selected independently for each channel in the range 1÷500 V/s in 1 V/s steps. The module features 100 pA Iset resolution.

SHV connector

HV coaxial connector, 8 channels for Mod. DT8034H

Consult our **connectors reference page** for technical information.

Module control can take place either **locally** thanks to a **2.8" Touchscreen Graphic color LCD display** with a completely redesigned user interface or **remotely**, via **USB 2.0** or **Ethernet**.

A complete set of **Software Tools** is available to control these units; the user can freely download low level libraries, LabVIEW driver and Graphical application software.

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

Channels	can be enabled or disabled through the Global Interlock logic.
Overvoltage and Undervoltage warning	when the output voltage differs from the programmed value by more than 2% of set value (minimum 10V).
Overcurrent detection	if a channel tries to draw a current larger than its programmed limit, it enters TRIP status, keeping the maximum allowed value for a programmable time (TRIP), before being switched off.
Hardware VMAX	Programmable VMAX protection limit.
Safety Board Interlock	common Interlock logic for channels enable/disable and individual inputs signal for channel Kill function.

Technical Specifications

Package

Desktop module housed in a 239x84x184 mm3 (WxHxD) Aluminium case (110/220V AC Powered)

Output channels

8 channels, SHV connector Positive, Negative or Mixed (4-8 positive and 4-8 negative) Polarity; common ground

Output Voltage

0÷6 kV

Max. Output Current

20 µA

Max. Ch. Output Power

0.12 W

Vset Resolution

20 mV

Vmon Resolution

20 mV

Iset Resolution

100 pA

Imon Resolution

100 pA (high range) / 10 pA (low range)

Vmax

0 ÷ 6 kV

Vmax resolution

2 V

IMAX hardware

20 µA

IMAX hardware resolution

20 nA

Ramp Up/Down

1÷500 Volt/s, 1 Volt/s step

Trip

Max. time an "overcurrent" can last (seconds). A channel in "overcurrent" works as a current generator; output voltage varies in order to keep the output current lower than the programmed value. "Overcurrent" lasting more than set value (1 to 9999) causes the channel to "trip". Output voltage will drop to zero either at the Ramp-down rate or at the fastest available rate, depending on Power Down setting; in both cases the channel is put in the off state. If trip= INFINITE, "overcurrent" lasts indefinitely. TRIP range: 0 ÷ 999.9s; 1000 s = Infinite. Step = 0.1 s

Voltage Ripple

10 - 1000Hz: <4mVpp typ; <8mVpp max 1kHz - 20MHz: <2mVpp typ; <5mVpp max

Vmon vs. Vout Accuracy

± 0.02% ± 1V

Vset vs. Vout Accuracy

± 0.02% ± 1V

Imon vs. Iout Accuracy

± 0.2% ± 20nA

Iset vs. Iout Accuracy

± 0.2% ± 20nA

Humidity range

0 ÷ 80% non condensing

Operating temperature

0 ÷ 45°C

Storage temperature

-10 ÷ 70°C

Vout / Temperature coefficient

±50 ppm / °C

Long Term stability (1 week after 1h warmup)

±0.02% / full scale

Local Control

LCD touchscreen

Remote Control

USB & Ethernet

Ordering Options

Code	Description	
WDT8034HXMAA	DT8034HM - 8CH Desktop Programmable HV Power Supply (4ch +6KV 20uA, 4ch -6KV 20uA) 50pA res -SHV con	RoHS
WDT8034HXNAA	DT8034HN - 8CH Desktop Programmable HV Power Supply (-6KV 20uA) 50pA res -SHV conn. - Common Gn	RoHS
WDT8034HXPAA	DT8034HP - 8CH Desktop Programmable HV Power Supply (+6KV 20uA) 50pA res -SHV conn. - Common Gnd	RoHS

Accessories

HV CABLES

High Voltage Cable Assemblies

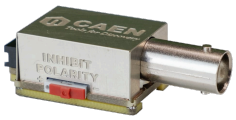
A1483

Inhibit - Kill Signal BNC Adapter for HV Power Supply Modules

A1484

Inhibit - Kill Signal BNC Adapter for HV Power Supply Modules

A148x



Inhibit - Kill Signal BNC Adapter for HV Power Supply Modules

Related Software

GECO2020

GEneral COntrol Software for CAEN HV Power Supplies

Related Software Libraries

CAEN HV Wrapper Library

Library for CAEN Power Supply Control

Related Products

LabVIEW Driver (PSM - Power Supply Modules)

LabVIEW Instrument Driver for Power Supply Modules

DT8032

8 Channel 500 V/ 10 mA Desktop Power Supply Module (USB/Ethernet/Touchscreen)

DT8031

8 Channel 100 V/ 10 mA Desktop Power Supply Module (USB/Ethernet/Touchscreen)

DT8033

8 Channel 4 kV/ 3 mA (6W) Desktop Power Supply Module (USB/Ethernet/Touchscreen)

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