



HIGH VOLTAGE SUPPLY

Ilsoo seong

Current DCube HV Supply

- Specification



Voltage	Current Limit and Trip Range	Filter
0 V to 1.5 kV	0.4 mA to 5.25 mA	NO FILTER or FILTER 1
	0.4 mA to 3.25 mA	FILTER 2
1.5 kV to 5.0 kV	0.5 mA to 5.25 mA	NO FILTER or FILTER 1
	0.5 mA to 3.25 mA	FILTER 2

CURRENT LIMIT ACCURACY: 0.01% + 2.5 μ A⁵.

CURRENT RESOLUTION: 1 μ A.

CURRENT DISPLAY ACCURACY: Current Set Accuracy \pm 1 μ A, typ. (\pm 2 μ A, max.).

STABILITY: \pm 0.02% per hour typical for ambient temperature within 2°C.

TEMPERATURE DRIFT: 50ppm/°C, 0° to 50°C, typical.

PROTECTION: Arc and short circuit protected; programmable voltage and current limits and current trip.

VOLTAGE RANGE: 0 TO \pm 5000V DC¹

Output Voltage	Maximum Output Current	Conditions
0 to \pm 5000 V DC	5.000 mA DC	NO FILTER
0 to \pm 3000 V DC	5.000 mA DC	FILTER 1
0 to \pm 5000 V DC	3.000 mA DC	FILTER 2

VOLTAGE SET ACCURACY: \pm (0.01% of setting + 2.5V)⁴.

VOLTAGE DISPLAY ACCURACY: Voltage Set Accuracy \pm 1V, typical (\pm 2V, max.).

VOLTAGE RESOLUTION: 1V (set and display).

VOLTAGE RESETTABILITY: 1V.

VOLTAGE LIMIT RANGE: 0 to 100% of full scale.

VOLTAGE REGULATION:²

Line: 0.001% for \pm 10% line voltage change.

Load: 0.005% for 100% load change, typical.

OUTPUT RIPPLE (10Hz–100kHz):³

0.002% of full scale, Vrms, max.	NO FILTER
1.0mV rms @ 1kV	FILTER 1 or FILTER 2
2.0mV rms @ 3kV	FILTER 1 or FILTER 2
3.0mV Rms @ 5kV	Filter 2

C.A.E.N (HV)

6,308 6,918

Model	N1471	N1471H
No. of Channels	4	4
V Full Scale (kV)	± 5.5	± 5.5
I Full Scale (mA)	0.3	0.02
Vset/Vmon resolution (V)	0.1	0.1
Ramp UP/DWN full scale (V/s)	500	500
Max Ripple (mVpp)	From 7 to 10 5 (Typ)	from 7 to 10 5 (Typ)
Iset/Imon resolution (nA)	5 Iset/Imon 0.5 Imon	1 Iset/Imon 0.05 Imon
Connectors	SHV	SHV
Features	Common floating RTN	Common floating RTN
Highlights	<ul style="list-style-type: none"> • 4 channels in 1U NIM module (2 & 1 channel versions also available) • 2U/Desktop (with 110/220 Vac) versions available • 5.5 kV / 300 μA output ranges • Channels with individually selectable positive or negative polarity 	<ul style="list-style-type: none"> • 4 channels in 1U NIM module (2 & 1 channel versions also available) • 5.5 kV / 20 μA output ranges • Channels with individually selectable positive or negative polarity • SHV coaxial output connectors • Common floating return

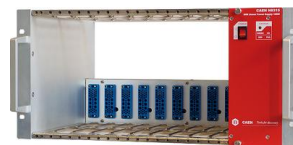


	band width	typical	maximum
Voltage Ripple: ⁷	10Hz+100Hz	<7mVpp	<10mVpp
	100Hz+100MHz	<5mVpp	<7mVpp

C.A.E.N (Crate)

Comparison of NIM8301 with similar products

is a Coming Soon product



Model	NIM8301	NIM8302	NIM8303
Package	NIM	NIM short size	NIM
No. Of Slots	12	10	12
Width	19"	19"	19"
Height	7U	5U	5U
Backplane connectors	NIM	NIM	NIM
Pluggable power supplies	Yes	Yes	Yes
Pluggable fan unit	Yes	No fan unit	No fan unit
Remote control	RS232 USB (2.0) CANBUS Ethernet	No	No
Output power	300 W, 600 W	150 W	300 W, 600 W
Highlights	<ul style="list-style-type: none"> • 19" x 7U (5+2) enclosure • 12 NIM slot • Pluggable Linear Power Supply (300W and 600W available) • Equipped with long-life NIM connectors • Pluggable 2U Fan Unit • Short circuit protection • Over / Undervoltage protection • Over temperature protection • CAN bus, Ethernet, USB and RS232 interface for remote monitoring and control • SBC controlled with graphic OLED colour display • Ergonomic pointer • Libraries, Demos (C and LabView) and Software tools for Windows and Linux • Easy firmware 	<ul style="list-style-type: none"> • Low cost compact solution • 19" x 5U enclosure • 12 slot non-ventilated NIM bin (10 free slots) • Slot linear power supply (150 W) • Equipped with long-life NIM connectors • Short circuit protection • Over / Undervoltage protection • Over temperature protection 	<ul style="list-style-type: none"> • 19" x 5U enclosure • 12 slot non-ventilated NIM bin • Pluggable linear power supplies (300/600 W) • Equipped with long-life NIM connectors • Short circuit protection • Over / Undervoltage protection • Over temperature protection • Control panel with mains switch, control LEDs and LEDs / test pins for all outputs

6,061 6,806 3,173 4,972 5,718

Low Voltage Supply for the Chip

N1419

4 Channel 500 V Programmable HV Power Supply

6,130



- 4 channels in 1U NIM module (2 & 1 channel versions also available)
- 2U/Desktop (with 110/220 Vac) versions available
- 500V / 200 μ A output ranges
- Channels with individually selectable positive or negative polarity
- SHV coaxial output connectors
- Common floating return
- Max Ripple smaller than < 5mVpp
- 50 mV Vset resolution
- 5 nA Iset resolution (x10 Imon-Zoom: 500 pA)
- Under/over-voltage alert, overcurrent and max. voltage protection
- Programmable ramp-up / ramp-down (1-50 V/s)
- Daisy-chain capability
- Graphic colour display
- Local and Remote control (USB2.0/RS485/RS232)
- Interlock logic for board enable and Individual channel kill
- Optional A1480 DC Input Power Equalizer
- Software Tool for remote control up to 128 channels

