

Features:

- Compact single width NIM package
- Regulated up to +5000 V dc 500µA output for negative and positive separately.
- Noise and ripple ≤10mV peak to peak
- Overload and short circuit protected
- Overload, inhibit status indicators
- Inhibit and overload latching circuits
- Four digit front panel meter
- CFP Instrument Control Bus (optional)
- LAN, USB, RS232, RS485 ICB available

Description:

The CFP Model 2039 High Voltage Power Supply is a single-width NIM module designed primarily for use with photomultiplier and electron multiplier tubes. But it can be used with any detector requiring a bias voltage up to 5000 V and a current level of 500 µ A or less.

The 2039 allows the user to select from two continuously adjustable outputs, ranging from +15 to +5000 V dc. The output voltage is measured and displayed by a four-digit voltmeter. In addition, this unit allows the user has fully separately positive and negative output voltage polarity. The 2039 unit are fully arc and short circuit protected and will limit continuous short circuit output current to less than 150% of maximum rated output current.

Specifications:

INPUTS

INPUT POWER

The Model 2039 is powered from a standard NIM Bin and power supply.

INHIBIT

TTL Logic low or ground inhibits the HV outputs; max logic low ≤ 0.4 V; logic high ≥2.5 V.

OUTPUTS

HV OUTPUT

+15 to +5000 V dc, continuously adjustable, 500 µ A output current

INDICATORS

HV OUTPUT

4-digit panel meter 0 to 5000 V.

INHIBIT

LED indicates Inhibit status.

OVERLOAD

LED indicates overload status.

CONTROLS

ON/OFF

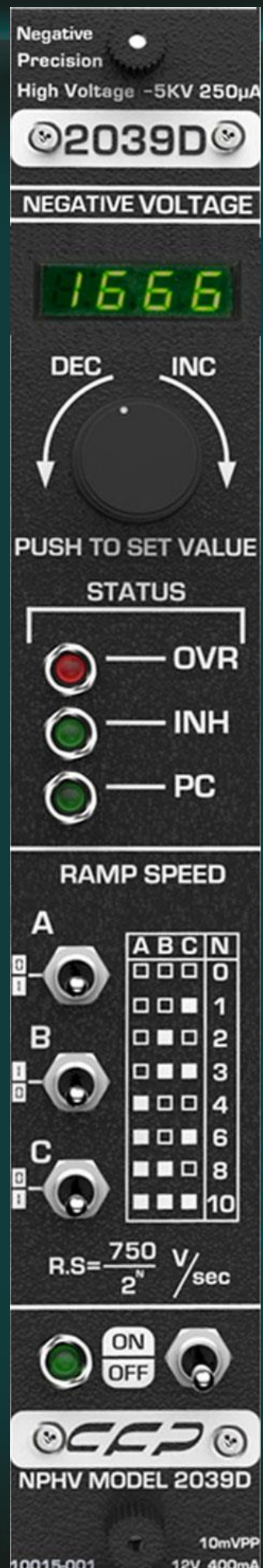
Front panel toggle switch enables or disables output.

VOLTAGE

Front panel Multi turn controls switch continuous adjustment of the output voltage.

Remote Control

Model 2039 have provisions for remote high voltage output control via an USB port.



Performance:

Voltage Regulation

Line ±0.001% of rated output voltage for a +1% input line change
 Load ±0.001% of rated output voltage for a full load change
 Ripple See 10mVpp table
 Stability ≤0.005% per hour, 0.02% per 8 hours, after a ½ hour warm up

Temperature

Temperature Coefficient ≤50ppm/° C
 Operating Temperature 0° C to +50° C
 Storage Temperature: -40° C to +85° C

Arc/Short Circuit: All units are fully arc and short circuit protected and will limit continuous short circuit output current to less than 150% of maximum rated output current.

Other

Humidity: 20% to 85% RH, non-condensing
 Interface Connector: LAN, USB, RS232, RS485
VOLTAGE Front panel Multi turn controls switch continuous adjustment of the output voltage.
 Output Connector: SHV connector
 Cooling: Convection cooled.

ELECTRICAL AND MECHANICAL POWER REQUIRED

TYPICAL POWER REQUIREMENTS

Standard version +12V - 450mA, -12 V - 450mA

PHYSICAL

SIZE: Single width NIM module 3.43 X 22.12 cm (1.35 X 8.71 inches) per TID-20893 [rev.] NET
WEIGHT: 0.9kg (2.0lbs.) - SHIPPING WEIGHT - 2.2 kg (4.9 lbs.)

ACCESSORIES included

LAN, USB, RS232, RS485 cable [opt],

NPHV2039D Rev1.0 10015-001

MODEL	OUTPUT VOLTAGE	OUTPUT CURRENT	OUTPUT NUMBER	RIPPLE (VPP)
NPHV2039	0 to +500	0 to +8ma	2POS	5mv
NPHV2039A	0 to +1000	0 to +4ma	2POS	4mv
NPHV2039B	0 to +2000	0 to +2ma	2POS	2mv
NPHV2039C	0 to +3000	0 to +1ma	2POS	6mv
NPHV2039D	0 to +5000	0 to +500µa	2POS	10mv
NPHV2039E	0 to +7500	0 to +250µa	2POS	100mv

