

NEGATIVE PRECISION HIGH VOLTAGE -3KV 1mA MODEL NPHV2039X - PRO



NUCLEAR INSTRUMENTS MODULE



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Features:

- Compact single width NIM package
- Regulated up to +5000 V dc 500μ A output for negative and positive separately
- Noise and ripple < 10mV peak to peak</p>
- Overload and short circuit protected
- Overload, inhibit status indicators
- Inhibit and overload latching circuits
- Four digit front panel meter (OLED display)
- 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 500μ 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 to 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 ${\leqslant}\,0.4$ V; logic high ${\geqslant}\,2.5$ V

Outputs

 HV Output: +15 to +5000 V dc, continuously adjustable, 500µA 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.



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- Performance
 - Voltage Regulation
 - Line: ±0.001% of rated output voltage for a +1% input line chang
 - Loade: ±0.001% of rated output voltage for a full load chang
 - Ripplee: See 10mVpp tabl
 - Stabilitye: \leq 0.005% per hour, 0.02% per 8 hours, after a $^{1\!/_{\!2}}$ 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 control 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	Out put Voltage	Output Current	Output Number	Ripple (Vpp)
NPHV2039	0 to + 500	0 to + 8 ma	2 POS	5mv
NPHV2039A	0 to + 1000	0 to + 4 ma	2 POS	4 mv
NPHV2039B	0 to + 2000	0 to + 2 ma	2 POS	2 mv
NPHV2039C	0 to + 3000	0 to + 1 ma	2 POS	6 mv
NPHV2039D	0 to + 5000	0 to + 500µa	2 POS	10 mv
NPHV2039E	0 to +7500	0 to + 2 50 µa	2 POS	100mv





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