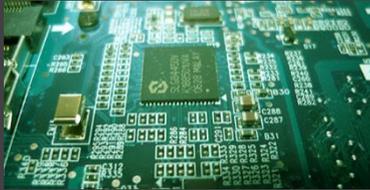




Innovator In Spectroscopy Equipment

NPHV2039



NEGATIVE PRECISION HIGH VOLTAGE MODEL NPHV2039

www.cfp.co.ir



Negative Precision High Voltage -3KV 1mA
2039D

NEGATIVE VOLTAGE

3248

DEC INC

PUSH TO SET VALUE

STATUS

INH PC OVR

RAMP SPEED

A	B	C	N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10

R.S = $\frac{750}{2^n}$ V/sec

HV ON OFF

CFP

NPHV MODEL 2039D

10016-001
4V 30mA
4V 30mA
2V 40mA
12V 250mA

REMOTE

INTERNAL

-HV

-HV

INH

TTL >2.5 <0.4

NPHV 2039D
SN:10016-001



CATALOG



NIM MODULES



FREE DOWNLOAD

NEGATIVE PRECISION HIGH VOLTAGE MODEL NPHV2039

Features

- High precision
- High efficiency > 90%
- Overload, inhibit status indicators
- Compact single width NIM package
- Overload and short circuit protected
- Inhibit and overload latching circuits
- Noise and ripple $\leq 10\text{mV}$ peak to peak
- Regulated up to -7500V dc output for negative and positive
- Low cost
- High stability
- Splash resistant design
- Four-digit front panel meter
- Excellent temperature stability
- Wide operational temperature range
- Ultra reliable industry standard design
- Being robust and suitable for use in challenging conditions



**HIGH PRECISION &
HIGH EFFICIENCY > 90%**

Description

The NPHV2039 from Control Farayand Pasargad (CFP) is a negative high voltage power supply, 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 -7500V and a current level of 500 μ A or less. The NPHV2039 allows the user to select from two continuously adjustable outputs, ranging from \pm 500 to

\pm 7500V 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 model 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. The NPHV2039 has six types; they're information is visible below.

Specifications

Unit : NPHV2039						
Version type	NPHV2039	NPHV2039A	NPHV2039B	NPHV2039C	NPHV2039D	NPHV2039E
Input(s)						
Input power	The model 2039 powered from a standard NIM bin and power supply					
INH	TTL logic low or ground inhibits the HV outputs; max logic low \leq 0.4V; logic high \geq 2.5V					
Output(s)						
+HV & -HV	0-500V, 4W	0-1000V, 4W	0-2000V, 4W	0-3000V, 3W	0-5000V, 2.5W	0-7500V, 1.8W
Control(s)						
ON/OFF	Front-panel toggle switch enables or disables output					
Voltage	Front-panel multi turn controls switch continuous adjustment of the output voltage					
Remote	The NPHV2039 have provisions for remote high voltage output control via an USB port					
Indicator(s)						
HV output	4-digit panel meter 0 to 500V	4-digit panel meter 0 to 1000V	4-digit panel meter 0 to 2000V	4-digit panel meter 0 to 3000V	4-digit panel meter 0 to 5000V	4-digit panel meter 0 to 7500V
INH	LED indicates inhibit status					
PC	LED indicates ???? status					
OVR	LED indicates overload status					
HV ON	LED indicates ON or OFF NPHV2039					
Performance						
Voltage regulation	Line: \pm 0.001% of rated output voltage for a +1% input line change. Load: \pm 0.001% of rated output voltage for a full load change. Ripple: see 10mVpp table					
Stability	\leq 0.005% per hour, 0.02% per 8 hours, after a ½ hour warm up					
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.					

Application

- Ion sources
- Cable testing
- Spectrometry
- Nuclear medicine
- X-Ray fluorescence
- Radiation detection
- Particle Accelerators
- Electron microscopes
- HV or E-field calibration
- Nuclear fusion research
- General laboratory usage
- Electrical and Mechanical



Electrical and Mechanical

Unit: NPHV2039

Version type	NPHV2039	NPHV2039A	NPHV2039B	NPHV2039C	NPHV2039D	NPHV2039E
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Electrical

Power required	Its power from a NIM bin power supply. Required dc voltages and currents are +24V, 30mA; -24V, 30mA; +12V, 40mA and -12V, 250mA.
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Physical

Dimensions (L x W x H)	220mm x 34mm x 248mm
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Weight	1.506kg
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Mechanical	<p style="text-align: right;">Unit: mm</p>
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Environmental

Storage temperature	0°C to 50°C
Operating temperature	10°C to 45°C
Relative humidity	10 to 80%

Software and user interface

The device doesn't have any software

Ordering info

NPHV2039 Standard package includes

Part #	Image	Description
NPHV2039 main		Negative precision high voltage 0–500V, 4W model NPHV2039
ACCE2039001		CD user guide (1 Pack)
ACCE2039002		Box with foam insert
ACCE2039003*		Guaranty (one year)

NPHV2039A Standard package includes

Part #	Image	Description
NPHV2039A main		Negative precision high voltage 0–1000V, 4W model NPHV2039A
ACCE2039001		CD user guide (1 Pack)
ACCE2039002		Box with foam insert
ACCE2039003*		Guaranty (one year)

NPHV2039B Standard package includes

Part #	Image	Description
NPHV2039B main		Negative precision high voltage 0–2000V, 4W model NPHV2039B
ACCE2039001		CD user guide (1 Pack)
ACCE2039002		Box with foam insert
ACCE2039003*		Guaranty (one year)

NPHV2039C Standard package includes

Part #	Image	Description
NPHV2039C main		Negative precision high voltage 0–3000V, 3W model NPHV2039C
ACCE2039001		CD user guide (1 Pack)
ACCE2039002		Box with foam insert
ACCE2039003*		Guaranty (one year)

NPHV2039D Standard package includes

Part #	Image	Description
NPHV2039D main		Negative precision high voltage 0–5000V, 2.5W model NPHV2039D
ACCE2039001		CD user guide (1 Pack)
ACCE2039002		Box with foam insert
ACCE2039003*		Guaranty (one year)

NPHV2039E Standard package includes

Part #	Image	Description
NPHV2039E main		Negative precision high voltage 0–7500V, 1.8W model NPHV2039E
ACCE2039001		CD user guide (1 Pack)
ACCE2039002		Box with foam insert
ACCE2039003*		Guaranty (one year)

* =we stand behind our products. We guarantee your satisfaction in the quality of our instruments by providing a complete one-year warranty covering any defect of workmanship, material, and/or design. If our products do not perform, we will provide complete repair and/or replacement. for guaranty conditions, please refer to manual device (NPHV2039 - Manual)

Optional accessories and services

Part #	Image	Description
ACCE2017004		Installation
ACCE2017005		Training
ACCE2017006**		Re-calibration (interval) services. 1year factory maintenance suggested, not required
ACCE2017011		BNC terminator 50 Ω
ACCE2017012		RG58A/U, 50 Ω cable with two BNC male plugs

ACCE2017013		Conn housing plug 50POS AMP connectors
ACCE2017014		Conn pin hood int 50pos panel MT
ACCE2017015		Guide pin 4-40
ACCE2017016		TE connectivity AMP connectors multimate, type II series pin
ACCE2017017		Bin guide pin
ACCE2017018		Guide socket

** = The proper maintenance & calibration of your instruments is critical to ensure proper performance & accuracy. for Re-calibration (interval) services, please call with CFP company (021- 4604538)

Safety precautions:

1. Do not touch the high voltage wire, unless the high voltage power supply is powered off, and the load and internal capacitors are fully discharged.
2. When the high voltage power supply is powered off, wait for another 5 minutes for fully discharging all the capacitors inside the power supply.
3. Do not operate the power supply in humid environment and do not connect the operator to ground.
4. The internal protection circuit is provided in the high voltage power supply, but the high voltage short circuit shall be avoided.
5. Make sure the circuit is insulated perfectly, especially between the high voltage output and the surroundings so as to avoid electronic shock.



Innovator in Spectroscopy Equipment



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