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Data Sheet

August 13, 2026

KEPCO

Kepeco BOP500M

Bipolar high-voltage current source 80 mA Capacitive or inductive HV loads per BOP-HV options Instrument Type: High voltage 4 quadrant bipolar operational power supply Alias: BOP 500M; BOP500M; BOP 500DM analog meter sibling Capacitive or inductive HV loads per BOP-HV options Instrument Type: High voltage 4 quadrant bipolar operational power supply Alias: BOP 500M; BOP500M; BOP 500DM analog meter sibling Voltage Channel Gain: 50 V perV Current Channel Gain: 8.0 A perV Voltage Mode Series R: 0.05 ohm



MODEL

Kepeco BOP500M

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

BOP500M

LISTING

<https://aumictechlabs.com/products/bop500m-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Kepeco BOP 500M is a high-voltage bipolar operational power supply and amplifier engineered for precision applications requiring both sourcing and sinking capability. It operates in voltage-stabilizing or current-stabilizing modes with independent control channels for local or remote operation. The Class A output stage delivers bidirectional response from zero, ensuring linear transitions across the full rated voltage and current ranges with no polarity switching. Technical Specifications Electrical Performance Output Voltage: ± 500 V DC Output Current: ± 80 mA DC Power Output: 40 W Input Power: 105–125 V AC or 210–250 V AC, 50–65 Hz (front panel selectable) Power Consumption: Approximately 250 W Power Factor: 0.8 Operating Temperature: -20°C to $+65^{\circ}\text{C}$ Storage Temperature: -40°C to $+85^{\circ}\text{C}$ Output Characteristics Four-quadrant

linear operation with source and sink capability up to 100% rated current Output Impedance (Voltage Mode): 0.05 Ω series resistance, 5 mH series inductance Output Impedance (Current Mode): 100 M Ω shunt resistance, 0.3 μ F shunt capacitance Peak-to-peak ripple measured over 20 Hz to 10 MHz bandwidth Key Features Dual-mode operation: voltage-stabilizing with adjustable current limiting and current-stabilizing with adjustable voltage limiting Independently adjustable voltage and current limits (programmable) FET output stage preamplifiers for summing and scaling arbitrary input signals Zeroable preamplifiers with minimum 20,000 V/V open-loop gain Uncommitted amplifier configuration available Natural convection cooling; optional forced-air cooling available Interfaces and Control Front panel local control with mode selection Remote programming via 30-terminal rear connector Separate control channels for output voltage and current Physical and Environmental Manufacturer: Kepco, Inc. Cooling: Natural convection (forced-air option available)

BOP500M Characteristics / Specifications

PARAMETER	VALUE
Model	BOP 500M
Manufacturer	Kepco Inc
Instrument Type	High voltage 4 quadrant bipolar operational power supply
Series	BOP HV
Alias	BOP 500M; BOP500M; BOP 500DM analog meter sibling
Output Voltage	plus/minus 500 V
Output Current	plus/minus 80 mA
Power Class	40 W
Voltage Channel Gain	50 V perV Current Channel Gain: 8.0 A perV Voltage Mode Series R: 0.05 ohm
Voltage Mode Series L	20 mH
Current Mode Shunt R	100 Mohm
Current Mode Shunt C	0.3 uF
Quadrants	4 (source and sink 100 percent duty per plot)
Stabilizer	automatic crossover voltage/current
Meter Type	analog (M); digital on BOP 500DM
Related 1000 V	BOP 1000DM plus/minus 1000 V plus/minus 40 mA
GPIO Path	Kepco SN 488 digital programmer
Local Control	voltage or current channel front-panel mode switch
Limits	four independent voltage/current limits
LEDs	voltage mode, current mode, voltage limit, current limit
Isolation	BOP-HV high voltage isolation class
Programming	analog 0 to 10 V class channels
Operating Temperature	0 to 55 C class
Agency	CE LVD EN61010-1 and EMC (BOP-HV) Notes

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 to 55 C class
Operating Temperature	0 to 55 C class
Agency	CE LVD EN61010-1 and EMC (BOP-HV) Notes

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Specifications	
PARAMETER	VALUE
Quadrants	4 (source and sink 100 percent duty per plot)
Stabilizer	automatic crossover voltage/current
Meter Type	analog (M); digital on BOP 500DM

Specifications

PARAMETER	VALUE
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Operating Temperature	0 to 55 C class
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Notes

Specs from Kepco BOP-HV model table (BOP 500DM/M: plus/minus 500 V, plus/minus 80 mA, GV 50, GA 8.0, 0.05 ohm, 20 mH, 100 Mohm, 0.3 uF). M analog meters while supplies last; confirmMversus DM.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.