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Data Sheet

August 14, 2026

KEPCO

Kepeco BOP20-10M Bipolar Operational Power Supply

The Kepco BOP20-10M is a bipolar operational power supply designed for both voltage and current control. It features a four-quadrant operation, allowing it to act as a source or sink. The unit provides precise control and is suitable for a variety of applications including component testing, simulation, and control systems.



MODEL

Kepeco BOP20-10M

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

BOP20-10M

LISTING

<https://aumictechlabs.com/products/bop20-10m-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Kepco BOP20-10M is a bipolar operational power supply and amplifier designed for precise voltage and current control in a four-quadrant operation. This unit can function as both a power source and a power sink, offering versatility for a wide range of technical applications. It is engineered for stability with inductive loads up to 1 Henry and R-L series load combinations, making it suitable for demanding test and simulation environments. The BOP20-10M is not a general-purpose power supply but rather a high-speed power operational amplifier. Technical Specifications General Model: BOP20-10M Power Output: 200 Watts Operating Mode: Bipolar Operational, Four-Quadrant (Source/Sink) Control: Separate circuits for voltage and current control Output Characteristics: Smoothly and linearly controlled through the entire rated plus and

minus ranges, passing through zero without polarity switching

Electrical Specifications

- * Voltage Output: 0 to $\pm 20\text{V}$
- Current Output: 0 to $\pm 10\text{A}$
- Bandwidth (Voltage Mode): 17.5 kHz
- Rise/Fall Time (Voltage Mode, 10%-90%, short-circuit): 20 μs
- Bandwidth (Current Mode, Nominal Resistive Load): 6.4 kHz
- Rise/Fall Time (Current Mode, 10%-90%, short-circuit): 55 μs
- Load Time Constant (Short-circuit, Nominal Resistive Load): 380 μs
- Load Effect (Current Mode, Nominal Resistive Load): 12 ppm/Hz
- Load Effect (Current Mode, Resistive Load, Nominal): Typically 0.5 mA in DC full scale
- Inductive Load Stability: Stable for loads up to 1 Henry
- R-L Series Load Stability: Stable with any R-L series load combination

Dynamic Specifications

- Voltage Slew Rate: 2 V/ μsec
- Current Slew Rate: 0.4 A/ μsec

Interfaces and Control Programming: Remote voltage and current control are available via resistance (potentiometer) or external programming inputs

Sensing: Local or remote sensing selectable in voltage mode. Local sensing required in current mode. Sense connections must be made from the same panel (front or rear) as output and common connections

Optional Control Modules:

- * BIT 4882: 12-bit IEEE 488.2 talk-listen control with SCPI support
- * BIT 4886: 16-bit IEEE 488.2 talk-listen control with SCPI support
- * BIT TMA-27: Connects BOP to Kepco's single-address multiple instrument serial bus for long-range control
- * BIT 488B or BIT 488D: Listen-only GPIB support in binary or Hex format

Physical Characteristics

Dimensions: Specific dimensions are not detailed in the provided search results but are available in the product manual.

Operational Notes and Considerations

Load Characteristics: The BOP works with optimal performance with mainly resistive loads. For capacitive loads (>0.1 microfarad), the unit must be slowed to avoid oscillation. This can be achieved by increasing feedback capacitance or using specific terminals on the rear programming connector. For capacitive loads in voltage mode, a 50V rated ceramic capacitor can be installed across pins 12 and 14 of the rear programming connector for stable operation.

Inductive Loads: To eliminate oscillation in the current loop with moderate inductive loads, options include adding capacitance (0.1 μF to 1.0 μF) in parallel with the output, or adding a series resistor-capacitor network (100-500 Ohms resistor, 0.1 μF to 0.5 μF capacitor) in parallel with the output.

Configuration: Models may be configured for inductive loads (ML, DL models) which offer enhanced stability for a wider range of inductive load values.

Output Terminals: Load connections are made via OUTPUT and COMMON terminals. These can be on the front or rear panel, but not both simultaneously. Sense connections must match the output connection location.

Grounding: The GROUND terminal connects to the chassis and earth ground. The BOP output terminal should never be connected to earth ground to prevent damage.

Power Input: It is recommended to use a UPS to supply the BOP.

Why Choose Aumictech for the Kepco BOP20-10M? At Aumictech, we specialize in supplying high-end power electronics equipment. Whether you need precise voltage and c

BOP2010M Characteristics / Specifications

PARAMETER	VALUE
Output Voltage Range	plus or minus 20 V
Output Current Range	plus or minus 10 A
Output Power Class	200 W
Operating Quadrants	4
Voltage Channel Closed Loop Gain	2.0
Current Channel Closed Loop Gain	1.0
Series Resistance Equivalent	40 microhm
Series Inductance Equivalent	50 uH
Feedback Resistance Class	20 kohm
Feedback Capacitance Class	0.1 uF
AC Input Current At 115 Vac Max Load	5.5 A
AC Input Voltage Selections	95 to 113, 105 to 125, 190 to 226, 210 to 250 Vac
AC Input Frequency	47 to 65 Hz
Error Sense Allowance	0.5 V per load wire
Operating Temperature Output Rating	0 C to 55 C
Isolation Output To Ground Leakage RMS Class	less than 5 uA at 115 Vac 60 Hz
Voltage Mode Bandwidth Resistive Class	18 kHz class per dynamics table
Current Mode Bandwidth Resistive Class	6 kHz class per dynamics table
Voltage Slew Rate Class	2 V per us
Current Slew Rate Class	0.4 A per us
Remote Analog Programming	minus 10 V to plus 10 V
Local Control	10 turn zero center potentiometer
Form Factor	rack mount BOP chassis
Bandwidth	Resistive Class: 18 kHz class per dynamics table

PARAMETER	VALUE
Operating temperature	Output Rating: 0 C to 55 C

BOP2010M Specifications

PARAMETER	VALUE
Four quadrant bipolar source and sink	Automatic CV/CC crossover
Optional GPIB BIT cards and serial/VXI interfaces	Uncommitted user amplifiers and plus or minus 10 V references
Technical Specifications	Output Voltage Range: plus or minus 20 V

General Specifications & Supplementary Characteristics

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Current Slew Rate Class	0.4 A per us
Remote Analog Programming	minus 10 V to plus 10 V
Local Control	10 turn zero center potentiometer
Form Factor	rack mount BOP chassis Notes Numeric rows from Kepco BOP Series catalog section for BOP 20-10M. Dynamics figures from OEM dynamics specification table for resistive load; slow BOP for capacitive or inductive loads per OEM guidance.

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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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

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

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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.