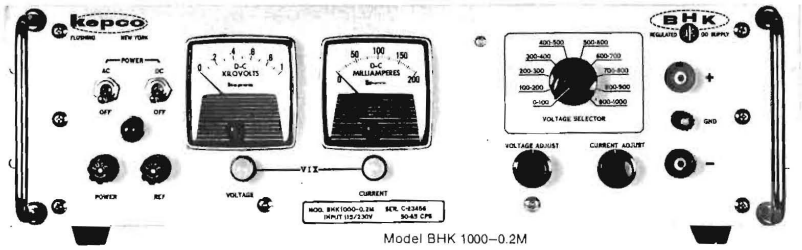

Model BHK 1000–0.2M

KEPCO BHK

HIGH VOLTAGE POWER SUPPLIES

- *fast slewing capability*
- *operationally controlled*
- *hybrid design*
- *10-turn voltage and current controls*

MODEL	DC OUTPUT RANGE		OUTPUT IMPEDANCE Ohms + Microhenries		
	VOLTS	AMPS	DC-100 cps	0.1-1kc	1-100kc
BHK 500–0.4M	**0–500**	**0–0.4**	0.13	0.1	0.2 + 0.5
BHK 1000–0.2M	**0–1000**	**0–0.2**	0.5	0.1	0.2 + 0.5
BHK 2000–0.1M	**0–2000**	**0–0.1**	2.0	0.1	0.2 + 0.5

SPECIFICATIONS	VOLTAGE REGULATION	CURRENT REGULATION (Internal Sensing)	VOLTAGE AMPLIFIER OFFSETS** ΔE_{io}	ΔI_{io}
OUTPUT RANGE:	0-100% E_O max.	0.2%-100% I_O max.	——	——
LINE: 105-125/210-250V AC	<0.005% or 1 mV*	<100 μA	<1 mV	<10 nA
LOAD: No load/full load	<0.01% or 1 mV*	<100 μA	<1 mV	<10 nA
TIME: 8 hours (Stability)	<0.01% or 2.0 mV*	<0.01% or 20μA*	<50 μV	<50 nA
TEMP: Per °C (Coefficient)	<0.01%	<0.05% of I_O max.	<100 μV	<50 nA
RIPPLE: rms (Normal Speed)	<1 mV	<100 μA	——	——

**whichever is greater*
***E_{io} is the offset voltage and I_{io} is the offset current referred to the input of the voltage comparison amplifier.*

DC VOLTAGE GAIN: More than 100 db.
OUTPUT SLEWING RATE: *(Fast slewing connection)*: Greater than 500,000 volts per second [0.5V/μsec.], measured as the chord to the first time constant on the exponential response.
SINUSOIDAL FREQUENCY RESPONSE:
Fast Slewing Connection: $f_{max} = \frac{160}{E_{pp}}$ kc.
(E_{pp} is the peak-to-peak excursion).
RIPPLE, Fast Slewing Connection:
Ungrounded: More than 60 db below peak output.
Grounded: More than 100 db below peak output.
TRANSIENT RESPONSE:
Voltage Mode, Fast Slewing: For step load current, recovery is an exponential with a 50 microsecond time constant.
Current Mode, Fast Slewing: For step load voltage, recovery is at the rate of 0.5 volt per microsecond.
Voltage Mode, Normal Speed: For step load current, recovery to regulation band within 50 microseconds.
OUTPUT IMPEDANCE:
Voltage Mode, Normal Speed: See table.
Voltage Mode, Fast Slewing: Above 1kc, add the reactive impedance of 500 microhenries.
OFFSET NULLING: The initial part of the input offset voltage and input offset current can be nulled with internal controls.
REFERENCES: Two: +6.2 volts and –6.2 volts; maximum current 1 milliampere.
PROGRAMMING: 1 mA control current, by resistance at 1000 ohms per volt. May be operationally controlled as an amplifier using voltage or current signals. Common positive.
AUTOMATIC CROSSOVER: Selects voltage regulation or current regulation operating mode automatically.
VIX® CIRCUIT: Voltage/Current mode indicators display operating conditions; also 115V AC control signal (0.5A max.)
REMOTE ERROR SENSING: Compensates up to 0.5V drop per output lead.
TEMPERATURE, AMBIENT OPERATING: –20°C to +55°C.
TEMPERATURE, STORAGE: –40°C to +85°C.
COOLING: Convection.
INPUT: 105-125 V AC or 210-250V AC (selected), 50-65 cps single phase. Approximately 4 amperes at 125V AC.
ISOLATION VOLTAGE: 1000 volts to chassis.
CONTROL RESOLUTION: Voltage: 0.01% 10-turn vernier control and 10 position selector. Current: 0.05% 10-turn control.
OVERSHOOT: (Turn-on/off): None above 10% voltage setting; negligible below 10% when preloaded to 10% minimum.
SERIES/PARALLEL: Automatic crossover design permits self-determined parallel load sharing, or use of master/slave connection. Series operation to rated isolation.
METERS: Suffix "M" designates a pair of 2½", 2% meters. Delete suffix "M" for unmetered unit.
TERMINALS: Safety (recessed) output connections on front panel; two multi-terminal barrier strips at the rear contain output, sensing and control functions. Fast slewing/normal strapping is internal.
DIMENSIONS: 5¼"H x 19"W x 16½"D (behind panel).
FINISH: Per FED. STD. 595. Color 26440, (light gray).

All terms used in the specifications are defined in the Kepco Glossary on Page 33.

Data subject to change without notice
PATENT NOTICE: Applicable Patent Nos. will be supplied on request.

KEPCO, INC. • 131-38 SANFORD AVENUE • FLUSHING, N.Y. 11352
(212) 461-7000 • TWX #710-582-2631
Telex: 12-6055 • Cable: KEPCOPOWER NEWYORK

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