APH MODEL TABLE

MODEL[3]	d-c OUTPUT RANGE		OUTPUT IMPEDANCE			
			VOLTAGE MODE		CURRENT MODE	
	Volts	mA	SERIES R	SERIES L[1]	SHUNT R	SHUNT C[2]
APH 500M	0-500	0-40	0.625Ω	10µH	125MΩ	6.0µF
APH 1000M	0-1000	0-20	2.5Ω	20µH	500MΩ	3.0µF
APH 2000M	0-2000	0-10	10Ω	40µH	2000MΩ	1.1µF

(1) For determining dynamic impedance in voltage mode.
(2) For determining dynamic impedance in current mode.
(3) Digital meters are available as an option. Substitute the suffix "DM" for the suffix "M" to specify the digital meter option.

KEPCO, INC. ● 131-38 SANFORD AVE. ● FLUSHING, NY 11352 USA
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APH GENERAL SPECIFICATIONS

SPECIFICATION	RATING/DESCRIPTION	CONDITION
INPUT		
a-c Voltage	105-125, 210-250V a-c	User selectable
Current	0.48A rms	Max load, 115V a-c
Frequency	47-63Hz	Range
Time delay	Approximately 30 seconds	Turn-on
OUTPUT		
d-c Output	Series pass	Hybrid type
Type of stabilizer	Automatic crossover	Voltage/current
Voltage	0-100% of rating	Adjustment range For temp 0-65°C
Current	0-100% of rating	
Error sense	0.5V per load wire	Voltage allowance
Isolation voltage	1000V d-c or peak	Output to ground
Leakage current	<5 microamperes	rms at 115V a-c
Output to ground	<50 microamperes	p-p at 115V a-c
Series connection	1000V	Max voltage off ground
Parallel connection	Automatic	Use current mode limiting
	Current sharing	Use master-slave connection
	Redundancy	Use external or-ing diodes

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APH GENERAL SPECIFICATIONS

SPECIFICATION	RATING/DESCRIPTION	CONDITION
CONTROL		
Type Voltage	Variable input, fixed gain	
Current	Differential comparison	
Voltage Local	10-turn precision rheostat	
Remote analog	0 to 5 Volts d-c	
Remote digital	Use SN/SNR interface	1000V max(1)
Current Local	10-turn precision potentiometer	
Remote analog	0 to 1 Volt d-c	
Remote digital	Use SN/SNR interface	1000V max(1)
Dynamics Normal (slow)	dV/dt = I/C	See tabulated value of C in the model table
Fast mode	NA	
User amplifier	Uncommitted gain 20K	One provided
MECHANICAL		
Input connection	Detachable IEC type 3-wire Plug pattern #1 (See page 83)	All models
Output connections	Binding posts, recessed	Front panel
	Barrier strip, interlocked	Rear panel
Meters	Two 2½" horizontal, 2%, analog	Front panel
Indicators	One neon, two LEDs	On/voltage/current
Mounting (in std 19" racks)	Use RA 37 rack adapter RFP 37-1 filler panel	All models are ¾ rack size
Bench use	Fully enclosed	Feet, handle and bail
Dimensions inches (HxWxD) mm	5 7/32 x 12 17/32 x 12 7/8 132.6 x 318.3 x 327	¾ rack size
Finish: Fed Std 595	Light gray, color 26440	Front panel, 2 tone
Weight	26lb (11.8Kg)	Packed for shipment

(1) The 1000V limitation on remote digital is for negative-terminal-ground applications. The maximum isolation of the optical isolators in the SN digital to analog converters is 1000V. There is no limitation for **plus** ground applications.

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APH STATIC SPECIFICATIONS

INFLUENCE QUANTITY		VOLTAGE MODE (1)	OUTPUT EFFECTS CURRENT MODE (Internal Sensing)	UNCOMMITTED AMPLIFIER OFFSETS (5) ΔE_{io}	ΔI_{io}	REFERENCES ±6.2V (1 mA Max.)
Source: 105-125V a-c 210-250V a-c		<0.001%	<0.005% of I_o max. or 0.2µA (4)	<5µV	<1nA	<0.0005%
Load: No load-full load		<0.005%	<0.01% of I_o max.	—	—	—
Time: 8-hour (drift)		<0.01%	<0.01% of I_o max.	<20µV	<1nA	<0.005%
Temperature: Per °C		<0.01%	<0.01% of I_o max.	<20µV	<2nA	<0.005%
Ripple and Noise (2)	rms	<2mV	<40µA	—	—	—
	p-p (3)	<10mV	<200µA	—	—	—

(1) Specifications expressed as a percent-of-setting for output range 10% to 100%. Below 10% output, specification limit is the rated percentage of the 10% output setting.

(2) One terminal grounded or connected so that the common-mode current does not flow through the load or (in current mode) through a sensing resistor.

(3) 20 Hz to 10 MHz.

(4) Whichever is greater.

(5) The output effect can be calculated by the relationship: $\Delta E_o = \pm\Delta E_r (R_f/R_i) \pm\Delta E_{io} (1+ R_f/R_i) \pm \Delta I_{io} (R_f)$ where R_f is the feedback resistor, and R_i is the input resistor from the reference, E_r.

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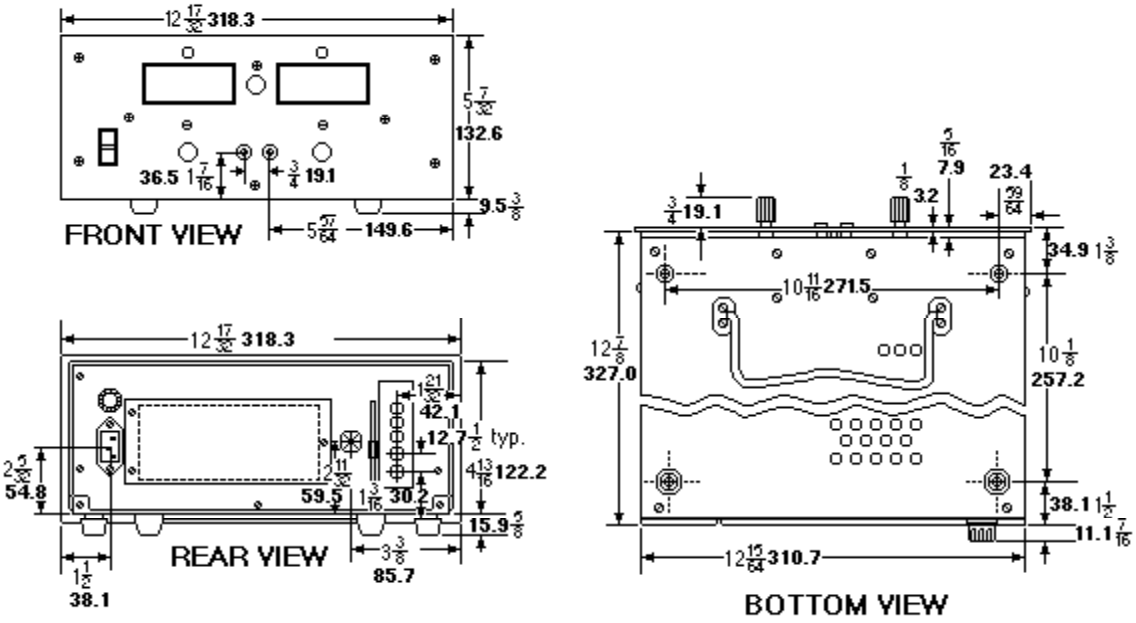
Fractional dimensions in light face type are in inches, dimensions in bold face type are in millimeters.

Tolerance: ± 1/64" (0.4) between mounting holes; ± 1/32" (0.8) other dimensions

SERIES APH



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