

MORE THAN MEETS THE EYE!

Kepeco's GPIB Keypad-Controlled 100W Power Supply



**LOTS OF COOL FEATURES,
NONE OF THE HEAVY METAL!**



**NEW NEW NEW NEW NEW NEW
RS 232
Programming**

SERIES ABC

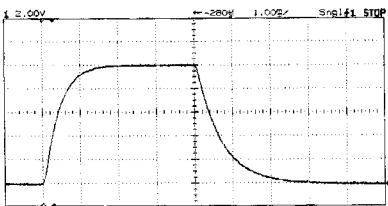
Kepeco's ABC bench power supply embodies features like high frequency switch-mode conversion, wide range input (85-264V a-c) and power factor correction. It meets the EN 61000-3-2 harmonic limits and does not disturb the other instruments on your bench. A built-in EN 55022 Class B input EMI filter means it is at home in your home or lab. It sits silently on your work bench and produces clean d-c.

Six different models are available from 0-10V at 10A to 0-125V at 1A. Hook it up to a GPIB controller and your ABC power supply integrates into a test system. The ABC is shipped with an instrumentation software driver using VISA* I/O to facilitate integration.

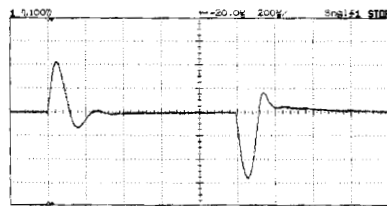
* Virtual Instrumentation Software Architecture (requires the installation of the 16-bit VISA driver from the GPIB card supplier.)



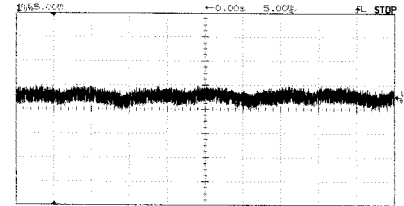
Inside View of Model ABC 10-10DM



Trace showing typical programming speed for 0-100% voltage, full load
Vertical 2.00V/division
Horizontal 1 ms/division



Trace showing typical recovery of output voltage when load is step-changed 50-100%
Vertical 100 mV/division
Horizontal 200 μ s/division



Trace showing typical output ripple at full load
Vertical 5 mV/division
Horizontal 5 ms/division

ABC MODEL TABLE

MODEL	d-c OUTPUT			RIPPLE AND NOISE (mV) p-p						EFFICIENCY
	RANGE		POWER WATTS	2x SOURCE FREQUENCY		SWITCHING FREQUENCY		SPIKE (50 MHz)		100% LOAD 85-264V a-c % MIN
	VOLTS	AMPS		TYP	MAX	TYP	MAX	TYP	MAX	
ABC 10-10DM	0-10	0-10	100	2	4	2	4	3	20	65%
ABC 15-7DM	0-15	0-7	105	3	7	3	8	4	20	66%
ABC 25-4DM	0-25	0-4	100	5	10	5	10	5	20	66%
ABC 36-3DM	0-36	0-3	108	7	15	7	15	7	20	67%
ABC 60-2DM	0-60	0-2	120	12	24	12	24	12	24	68%
ABC 125-1DM	0-125	0-1	125	25	50	25	50	25	50	70%

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NO KNOBS

Direct entry of voltage and current from the keypad with up-down slew buttons.

NO METERS

A two-line, sixteen character backlit display prompts you for settings and reports back what the ABC is delivering to your load.

NO CALIBRATION POTS

All full scale and zero adjustments are made with the keypad and are stored in non-volatile memory. Calibration is password protected.

NO PROBLEM CONNECTING TO THE BUS

Kepeco's ABC is controlled over the GPIB and understands SCPI and IEEE 488.2. VISA driver provided. An RS 232 port is also standard.

NO HASSLE

Kepeco's ABC operates as a voltage stabilizer when it's supposed to and as a current stabilizer when that's appropriate. You don't do anything, the ABC will figure it out for itself.

NO FANS

The high efficiency switching topology used in ABC requires no mechanical cooling.

NO NOISE

A highly effective multi-stage output filter keeps the output ripple and noise down to linear levels...without the heavy metal.

NO DANGER

Overvoltage and overcurrent are standard and fully programmable.

NO STRAIN

Store 40 different combinations of voltage, current, overvoltage and overcurrent in non-volatile memory and recall individually or in a step sequence.

NO SWEAT

Affordably priced.



ABC INPUT CHARACTERISTICS			
SPECIFICATIONS		RATING/DESCRIPTION	CONDITION
a-c Voltage	nominal	100-240V a-c	Single phase
	range	85-264V a-c	Wide range
Frequency	nominal	50-60Hz	>63Hz Input leakage current exceeds spec
	range	47-63Hz (400Hz)	
Current	85V a-c	1.8A ⁽¹⁾	Maximum at 100W output
	120V a-c	1.3A ⁽¹⁾	
	240V a-c	0.65A ⁽¹⁾	
	264V a-c	0.60A ⁽¹⁾	
Initial Turn-on Surge		5A peak for less than 150 µsec	85-264V a-c 0-100% load
Power Factor	min	120V 0.97	100% load
		240V 0.93	
EMC Immunity To:			
	Radiated RF	EN61000-4-3	Level 3
	Magnetic Field	EN61000-4-8	Level 4
	Electrostatic discharge	EN61000-4-2	Level 2 4KV contact Level 3 8KV air discharge
	Conducted RF	EN61000-4-6	Level 3
	Electrical Fast Transient Surges	EN61000-4-4	Level 3
		EN61000-4-5	Level 4
EMC Emissions:			
Conducted		EN61000-3-2	Harmonics (0-2 KHz)
		EN61000-3-3	Fluctuation & Flicker
		EN55022 Class B	0.15~30 MHz
Radiated		EN55022 Class B	30~1000 MHz
Leakage Current	120V a-c	<0.25mA	Source frequency in 47-63Hz range
	240V a-c	<0.5mA	

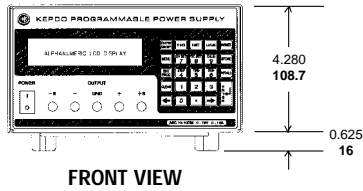
(1) Input current for 100W output. For the 120W ABC 60-2M and 125W ABC 125-1M the input current is proportionally higher.

ABC OUTPUT CHARACTERISTICS			
SPECIFICATIONS		RATING/DESCRIPTION	CONDITION
Type of Stabilizer		Automatic crossover	Voltage/Current
Adjustment Range		0 to 100%of rating	Voltage/Current
Source Effect	Voltage	<0.01% E _o max	Nominal ± 15% of input voltage
	Current	<0.01% I _o max	
Load Effect	Voltage	<0.01% E _o max	0 to 100% load change
	Current	<0.02% I _o max	
Temperature Effect	Voltage	<0.01% E _o max	Per degree C (0 to 50°C)
	Current	<0.01% I _o max	
Time Effect	Voltage	<0.01% E _o max	0.5-8.5 hours
	Current	<0.01% I _o max	
Error Sense		0.5V per wire	Voltage allowance
Isolation Voltage		500V d-c or peak	Output to ground
Programming Time		2ms max	10%-90%
Programming Accuracy	Voltage	0.025% E _o max	
	Current	0.1% I _o max ⁽¹⁾	
Readback/Display Accuracy	Voltage	0.05% E _o max	
	Current	0.1% I _o max	
Transient Recovery to Load Change	Excursion	<5% E _o max	50%-100% load change return to 1% E _o max
	Recovery	<200 µsec	
Overshoot		None	Turn ON/OFF
Data entry	Local	24 key keypad	Front panel
	Remote	GPIB (IEEE 488.2)	SCPI commands
		RS 232	RJ 45

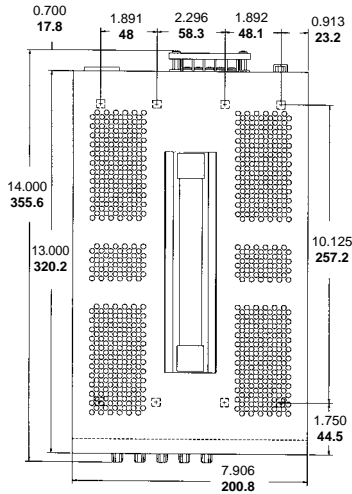
(1) ABC 25-4DM: 0.05%; ABC 36-3DM, ABC 60-2DM and ABC 125-1DM: 0.025%.

OUTLINE DIMENSIONAL DRAWINGS

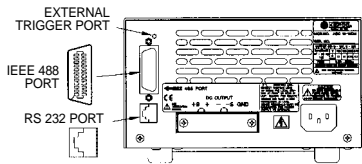
Fractional dimensions in light face type are in inches.
dimensions in bold face type are in millimeters.
 Tolerance: $\pm 1/64"$ (**0.4**) between mounting holes
 $\pm 1/32"$ (**0.8**) other dimensions



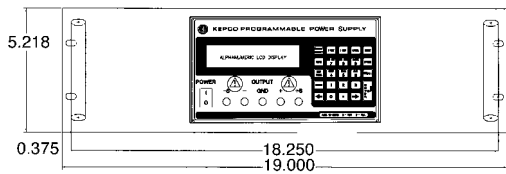
FRONT VIEW



TOP VIEW

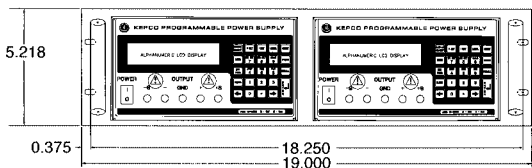


REAR VIEW



RA 71

19" rack adapter for single ABC power supply



RA 72

19" rack adapter for two ABC power supplies

ABC GENERAL (ENVIRONMENTAL) SPECIFICATIONS

SPECIFICATIONS	RATING/DESCRIPTION	CONDITION
Temperature	Operating	0° to +50°C No derating 100% P _O max
		+50°C to +70°C Linear derating to 40% P _O max
	Storage	-40° to +85°C
Humidity	0 to 95% RH	Non condensing operating & storage
Shock	20g, 11msec \pm 50% half sine	3-axes 3 shocks each axis
Vibration	5-10Hz 10mm double amplitude	Non operating 1 hour each axis
	10-55Hz 2g	
Altitude	Sea level to 10,000 ft	
Cooling	Natural convection	

ABC PHYSICAL CHARACTERISTICS

SPECIFICATIONS	RATING/DESCRIPTION	CONDITION
Dimensions	English	7.9" x 4.9" x 14"
	Metric	200.8 x 124.6 x 355.6 mm
Weight	English	15 lbs.
	Metric	6.8 Kg
a-c Input Connections	Front	Panel ON/OFF switch
	Rear	Detachable IEC 320 type connector
Output Local Connections	Front	5 binding posts
	Rear	5 terminal barrier strips
Remote Control Programming	One standard GPIB connector	Rear SCPI and IEEE 488-2 commands
	One RS 232	Rear RJ 45
	External trigger port	
Digital Display Front Panel	Voltage, current, mode, status, menu, program	2 x 16 character alphanumeric LCD with LED backlight
Rack Adapters	5 1/4" x 19"	RA 71: 1 ABC unit RA 72: 2 ABC units

 ABC are CE marked per the Low Voltage Directive (LVD), EN61010-1 and the EMC Directives



FULL DATA AVAILABLE ON THE WEB.
VISIT OUR SITE AT www.kepcopower.com

