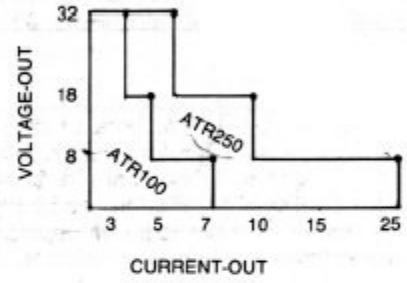
ATR Series
Linear Controlled DC Power Supplies

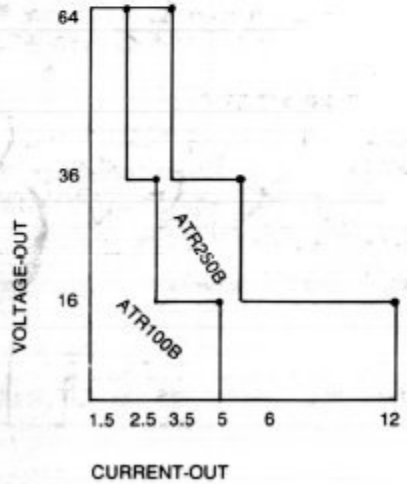
ELECTRONIC MEASUREMENTS INC.

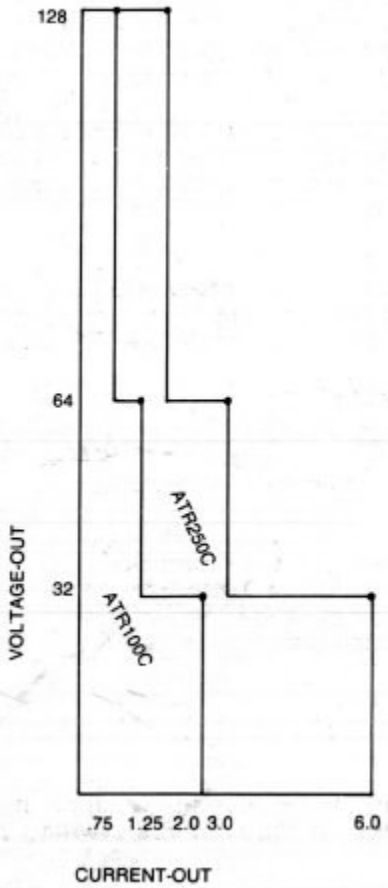
Models ATR-100 and ATR-250 Linear DC Power Supplies

The ATR Series now offers wide range linear controlled, DC power supplies with models providing output power of 100 watts and 250 watts. Through a unique line frequency automatic tap switching system, the unregulated DC available to the pass transistor is varied depending on the output voltage required. This minimizes internal wattage dissipation and provides an essentially constant power output profile. At lower output voltages, higher output currents are available and at lower output currents, higher output voltages are available.

Both models are fully programmable sources of constant voltage or constant current. Both are metered and contain an internally-mounted adjustable OVP circuit. Output power is provided either from front-panel mounted binding posts or a rear-panel terminal strip. They are particularly attractive for such applications as automatic test equipment and bench-top and laboratory systems.







ATR Series Linear Power Supplies

OUTPUT RATINGS @ 40°C

PWR	OUTPUT RANGES			REGULATION VOLTS	REGULATION AMPS	RIPPLE RMS P-P	MODEL	RACK SIZE
100W	0-8V 0-10A	8-18V 0-5A	18-32V 0-3A	.01% +3MV	.01% +3MA	1MV 5MV	ATR100	1/4
	0-16V 0-5A	16-36V 0-2.5A	36-64V 0-1.5A	.01% +6MV	.01% +3MA	2MV 10MV	ATR100B	1/4
	0-32V 0-2.5A	32-64V 0-1.3A	64-128V 0-0.75	.01 +10MV	.01% +3MA	3MV 15MV	ATR100C	1/4
250W	0-8V 0-25A	8-18V 0-13A	18-32V 0-7A	.01% +3MV	.01% +7MA	1MV 5MV	ATR250	1/2
	0-16V 0-12A	16-36V 0-6A	36-64V 0-3.5A	.01% +6MV	.01% +7MA	2MV 10MV	ATR250B	1/2
	0-32V 0-6A	32-64V 0-3.0A	64-128V 0-1.75A	.01% +10MV	.01% +7MA	3MV 5MV	ATR250C	1/2

AC INPUT:

105-125 VAC, 47 to 63 Hz 1Ø. AC input current at maximum load ATR-100 2.2A, ATR 250 5.0A. Optional AC inputs centered at 100, 104, 200, 208 and 230 volts are available.

DC OUTPUT:

DC output voltage is continuously adjustable from zero volts to the maximum voltage shown for each power supply; the DC load current available for each model is dependent upon the output voltage level. The chart identified as Operational Ratings and the output voltage/current curves show the boundary limits on voltage and current that are automatically available from ATR power supplies.

LINE EFFECTS:

Variations in AC line voltage from 10.5 to 125VAC cause voltage output variations of less than 0.01% + 3ma for the ATR 100's and 47ma for the ATR 250's.

LOAD EFFECTS:

In the constant voltage mode, variations of DC load current within ratings cause variations in output voltage of less 3mv for the ATR 100 and 250, 6mv for the ATR 100B and 250B, and 10mv for the ATR 100C and 250C. In the const ant current mode variations of DC compliance voltage within ratings cause variations of output current of less than 0.01% + 3ma for the ATR 100's and + 7 ma for the ATR 250's.

OPERATING TEMPERATURE:

0 to 40°C at full rating. The supply is thermostatically protected against over temperature conditions. Storage temperature is -40°C to +85°C.

LOAD TRANSIENT:

Output transient voltages caused by instantaneous load changes from 50% to 100%, or 100% to 50%, of rating will recover within: ±15mv for the ATR 100 and 250; ±30mv for the ATR 100B and 250B, and ±60mv for the ATR 100C and 250C of the final value within 50 micro-seconds.

STABILITY:

The output voltage (or current) will remain within 0.05% ±10mV (or ±15mA) of set point for 8 hours, following 30-minute warm up, with other external effects held constant. Output stability may be improved by replacing internal voltage and current controls with appropriate value and stability fixed programming resistors.

RESOLUTION:

Voltage and current controls are 10-turn potentiometers capable of output adjustment settings within ±2.5mV or ±5mA respectively.

OVER VOLTAGE PROTECTION:

A self-contained, front-panel adjustable OVP is included to protect loads from power supply malfunction or inadvertent output over voltage adjustment. Output voltages above the setting range of 2.5V to 35V are "crowbarred" and a front-panel LED display indicates OVP trip condition.

PROGRAMMING:

The ATR power supply may be local, remote or digitally programmed. In the remote mode, the programming source may be either an extrnal resistance, voltage or current. The Model EMTC IEEE 488 Digital Programmer may be used in conjunction with the ATR power supply to provide digital computer control of power supply output.

ADDITIONAL FEATURES:

The ATR Series also provides remote sensing, parallel operation (direct parallel or master/slave), and series operation (independent or dual tracking).

MOUNTING:

The supply can be bench- or rack-mounted. For bench use, a retractable strap carry handle and a tilt stand are provided. For rack mounting, rack adapter systems are available.

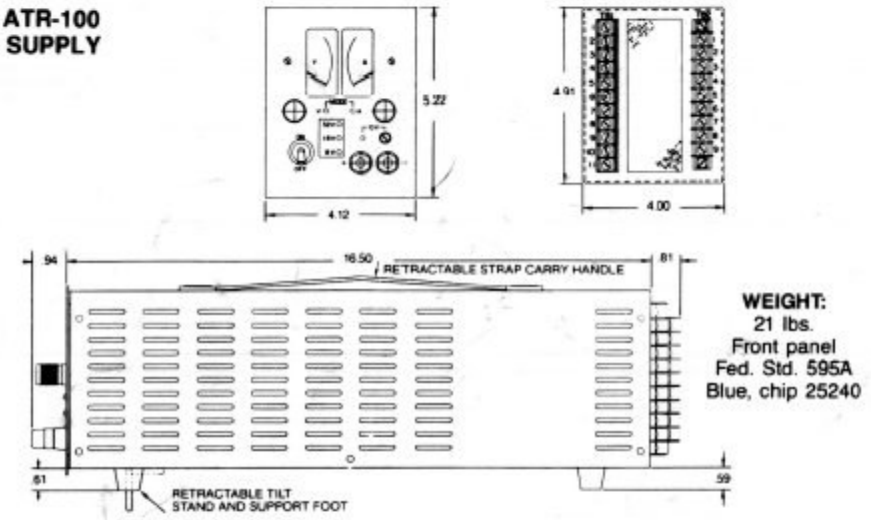
RACK ADAPTERS:

Two types of rack adapter systems are available. One system, Model RA-3, grasps each ATR unit in a slot behind the front panel and suspends the unit in the adapter. A rear support bar is also provided to tie the ATR units into a rigid assembly. When more than one ATR-100 is rack-mounted or when one ATR-250 unit is rack-mounted, side support in the form of an angle bracket attached to the equipment cabinet is required to carry the weight of the unit behind the panel.

The second adapter system, the Model RA-4, is the same as the first model except that it also provides for the application of chassis slides (Chassis Trak # C300-S-18, not included) to the rack assembly.

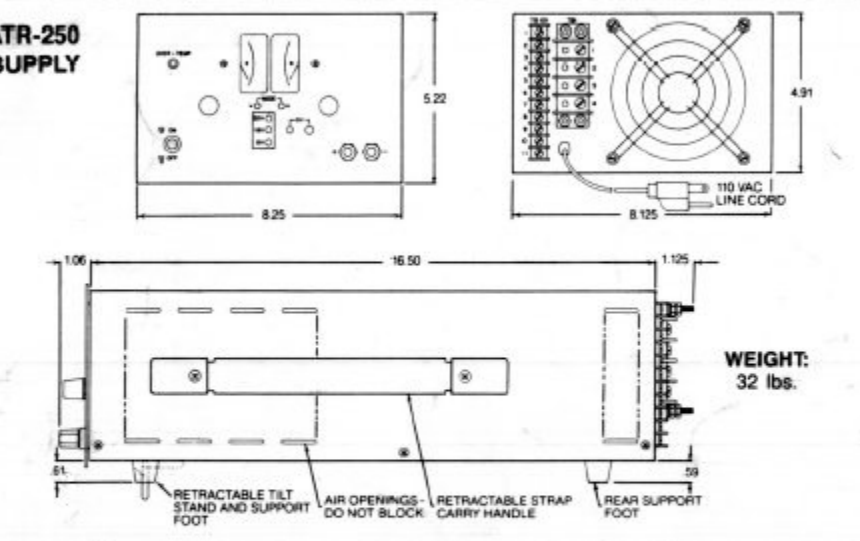
Each rack adapter can mount four quarter-rack units, two half-rack units, or combinations of the two types. Prices for the two rack adapters are: Model RA-3 $65; Model RA-4 $85. Blank filler panels are also available, one-quarter-rack wide, P/N22-039-000, at $15 each.

MODEL ATR-100
POWER SUPPLY



WEIGHT:
21 lbs.
Front panel
Fed. Std. 595A
Blue, chip 25240

MODEL ATR-250
POWER SUPPLY



WEIGHT:
32 lbs.

All dimensions shown in inches

ELECTRONIC MEASUREMENTS INC.

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