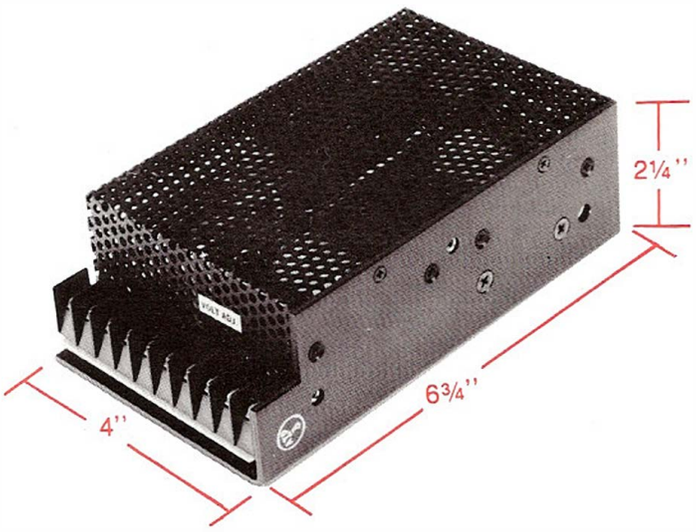
Abbott

AC-DC Switchers

TRIPLE OUTPUT HIGH PERFORMANCE COMPACT RELIABLE 95-WATT POWER SUPPLY



The Model ZBT is a three-output switching power supply providing the high power density and performance usually available only from custom designs. Each output is fully regulated to satisfy the appropriate power requirements of linear and digital circuits. Its small size makes it ideal for compact electronics. These models use the same forward converter single switching transistor circuit that has proven its reliability and performance on our single output models.

- **HIGH POWER DENSITY.** Up to 1.6 watts per cubic inch
- **HIGH OPERATING TEMPERATURE.** 100% rated power up to 80°C
- **CONVECTION OR CONDUCTION COOLING**
- **LOW EMI.** Meets FCC20780, Class A
- **NO MINIMUM LOAD** required
- **BROWNOUT PROTECTION.** 16 msecs hold-up minimum
- **OVERVOLTAGE AND SHORT CIRCUIT PROTECTION STANDARD**
- **SOFT START** (Thermistor)
- **16 HOUR BURN-IN**
- **TWO-YEAR WARRANTY**

FOUR STANDARD TRIPLE OUTPUT MODELS

OUTPUT NO. 1		OUTPUT NO. 2		OUTPUT NO. 3			
Voltage*	Maximum Current	Voltage*	Maximum Current	Voltage*	Maximum Current	Model No.	Maximum Continuous Power
5	13A	+12	1.0	−12	1.0	ZB95T5/12	90W
5	13A	+15	1.0	−15	1.0	ZB95T5/15	95W
5	11A	+12	1.3	−12	1.3	ZB90T5/12	85W
5	10A	+15	1.3	−15	1.3	ZB90T5/15	90W

Other voltage and current combinations are available. Please contact your nearest sales office.
*All outputs are continuously available ±5%. External adjustment accessible by a screwdriver to potentiometer.

Abbott
Main Sales Office: 639 S. Glenwood Place, Burbank, CA 91506, **(818) 841-3630**, FAX (818) 954-9305
Eastern Sales Office: 321 Commercial Avenue, Suite 104, Palisades Park, NJ 07650, (201) 461-4005, FAX (201) 461-6323

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SPECIFICATIONS

AC INPUT: 90 to 132 and 180 to 265 Vrms, 47 to 400Hz, single phase. Dual input selectable.

EFFICIENCY: 65% typical.

LINE REGULATION: 0.2% for full input change between 90 and 132 or 180 and 265 Vrms. Temperature and load constant.

LOAD REGULATION: Main output — 0.2%; other outputs, 1%

CROSS REGULATION: 0.2% on all outputs.

RIPPLE: Main output — 100mV peak-to-peak measured with a 15 MHz bandwidth. All other outputs — 200mV peak-to-peak when measured with a 15 MHz bandwidth.

STABILITY: Output voltage changes less than ±0.05% for 24 hours following initial warm-up period.

LOAD TRANSIENT RESPONSE: Recovery to within 1% of nominal voltage set point, 0.5 msecs maximum after 50% load change.

LOAD TRANSIENT OVERSHOOT: Maximum voltage deviation all outputs is 5% from nominal voltage set point.

HOLD UP TIME: 16 msecs minimum after nominal input voltage is lost at full load.

TEMPERATURE RANGE: Operating: 0°C to 85°C. (See Cooling Requirements) Storage temperature –40°C to 85°C.

TEMPERATURE COEFFICIENT: 0.03% per degree centigrade typical.

ISOLATION VOLTAGE: 1,000 Vdc input to output and input to case, 500 Vdc output to case.

INSULATION RESISTANCE: 50M ohms minimum input to output, input to case, and output to case when measured at 50 Vdc.

SHORT CIRCUIT PROTECTION: Complete protection against a short circuit of any duration with automatic restart. Current limiter nominally set at 120% which shuts down all outputs when activated. Outputs 2 and 3 with ±12 and ±15 Vdc have a fold-back circuit which shuts down the affected output only.

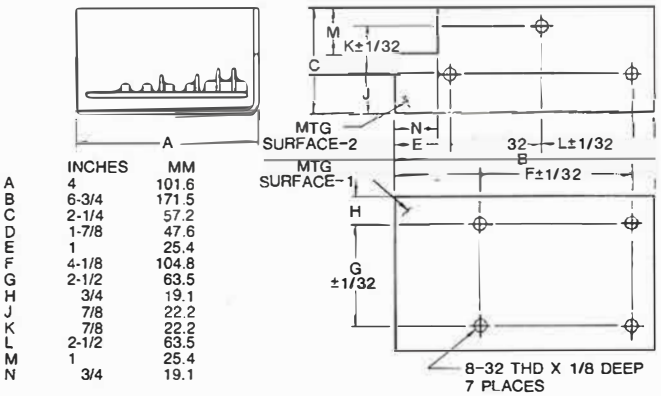
OVER VOLTAGE PROTECTION: Output No. 1 has an internal non-crowbar circuit which shuts down all outputs.

REMOTE ERROR SENSING: Regulator monitors the voltage of Output No. 1 directly at the load using extra "sensing" leads and compensates for a dc voltage drop up to 0.3 volts in the load leads.

INPUT PROTECTION: External fuse recommended.

WEIGHT: 2 lbs., 0.9 kgs.

MECHANICAL DIMENSIONS

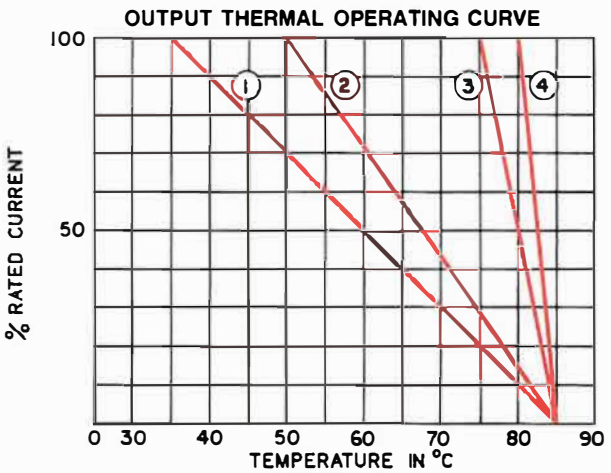


	INCHES	MM
A	4	101.6
B	6-3/4	171.5
C	2-1/4	57.2
D	1-7/8	47.6
E	1	25.4
F	4-1/8	104.8
G	2-1/2	63.5
H	3/4	19.1
J	7/8	22.2
K	7/8	22.2
L	2-1/2	63.5
M	1	25.4
N	3/4	19.1

Output terminal functions right to left: +5V, 5V + sense, common return, 5V return sense, ±Output 2, ±Output 3.
Input terminal functions right to left: 230 Vac, ac common, 115 Vac.

Dimensional tolerances: ±1/16 in. ±1.6mm except as specified.

COOLING REQUIREMENTS



Curves 1 through 4 describe the percentage of rated output current that may be drawn from any model at various temperatures.

RADIATION COOLING — CURVE 1. Using Mounting Surface 2, no additional heat sinking is required. 100% of rated current may be drawn at 35°C. Temperature is ambient and measured within 1 inch of Mounting Surface 1 in still air.

CONVECTION COOLING — CURVE 2. Temperature is ambient. A factory accessory finned thermal radiator may be attached to Mounting Surface 1. Using Mounting Surface 2, the unit is installed with fins in vertical position. 100% of rated current may be drawn at 50°C.

CONDUCTION COOLING — CURVE 3. Temperature measured at mounting surface. Mounting Surface 1 or 2 must be attached to a heat sink. 100% of rated current may be drawn at 75°C.

FORCED AIR COOLING — CURVE 4. Temperature is ambient. Unit can be mounted on either surface when at least 25 cubic ft. per minute of air flow is provided and 100% of rated current may be drawn at 80°C.

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