MODEL 7700-SCB

NIM HIGH-POWERED CRATE

FEATURES

- 700 Watts total output power
- Regulated dc power of ±6V at 60A, ±12V at 4A, ±24V at 8A
- Modular power supply with handles, locks automatically into position making insertion and removal safe and easy. No tools required.
- Modular Blower unit includes system on/off switch, voltage test points, power monitor light, temperature warning light and Digital LCD voltage and current metering.
- Blower air-intake filters can be removed in seconds.
- Thermal, short circuit and over-voltage protection.
- Voltage Test Points on blower and power supply
- Ferro-Resonant transformer is utilized to achieve better regulation and stability.

GENERAL DESCRIPTION

The Bi Ra Model 7700-Supply Crate Blower is a powered NIM crate, which consists of the Model 6700P modular power supply, Model 7700C NIM Crate, and Model 6700B modular six fan (dc) blower unit. The Model 7700-SCB was designed to meet the user's changing needs and increasing power requirements by allowing them to select from several different power supply modules (see options) and several different blower options.

CRATE DESCRIPTION

The crate provides mounting space and power sources for 12-single-wide NIM (Nuclear Instrument Modules) totals. The crate supports the rear mounted power supply module and houses the removable blower unit. The crate assembly is constructed of reinforced steel and designed for convenience and serviceability. Both the blower unit and power supply can be detached without removing the crate from the rack. Electroless nickel-plated guide rails insure smooth alignment and minimize air obstruction for cooling of the modules and provides excellent ground return (especially for analog designed modules).

POWER SUPPLY DESCRIPTION

The Model 6700 Power Supply employs the Ferro-Resonant transformer and Darlington transistors to achieve higher efficiency and reliability. The power supply is modular in construction, single connector attachment, and automatically latches into position. The power supply is self-ventilated by a large internal blower(EBM) (rated at 236 CFM) to maximize cooling area and air flow in order to enhance performance and reliability. The power supply outputs are protected from over-voltage and over-current. Positive and negative regulator cards are modular so they may be serviced and removed easily. Additional features include handles for maneuverability and safety, voltage test points, and instant visibility and easy access to all fuses.

BLOWER DESCRIPTION

The modular six fan (dc) blower unit features low-vibration, low-noise, and venturi-type ball-bearing fans(rated at 660 CFM combined) to provide good air flow and maximum module ventilation. The blower unit and crate side panels were concurrently designed to insure maximum air-intake. This design allows the user the versatility to use the powered crate as a bench top or rack mounting it. The three large air intake ports house the dust filters which can be removed in seconds without any tools. Front panel indicators include over-temperature warning, a switch-selected digital meter for monitoring all voltages and currents, and voltage test points.

MODEL 6700RMS DESCRIPTION

The Bi Ra Model 6700RMS is made up of two basic components, the 700 Watt Power supply, and the Rack Mount power Supply tray. The RMS tray allows the end-user to mount and operate the 6700 Power Supply independently of the CAMAC Crate. The tray mounts to a standard 19" Rack and is designed to allow the user to mount and remove the power supply easily, or be purchased separatly to be used to store back-up power supply. The Model 6700 RMS comes standard with 3 ft. cable (crate to power supply) and AC power cord. Seen on following page.

CRATE SPECIFICATIONS

Dimensions	19" rack mount; 12.25" height; 21.75" depth
Voltage Meter	Digital meter provides monitoring of all output currents and voltages.
Cooling	Six high capacity fans (rated at 660 CFM).
Weight	39 lb. (17.7 kg)

POWER SPECIFICATIONS

Total Power:

700W maximum +/-6V,+/-12V, +/-24V combined

Maximum output currents from:

+/- 6V	Up to 60 Amps from either supply. 90 Amps combined sum. See Graph 2.
+/- 24V	8 Amps maximum each. Subtract current drawn by +/- 12 V load.
+/- 12V	4 Amps maximum each. Derived from +/- 24 V supply.

Note: 1) All models provide current foldback limiting and over voltage crowbar protection for all output voltages.

Note: 2) On all models the +/-12V is derived from +/- 24V sources.

PERFORMANCE

Ripple	<15 mV peak-to-peak (50MHz bandwidth).
Regulation	+/- 0.01 % line or load (at the sense leads).

Temperature Coefficient	<0.1%/degC.
Long Term Stability	<0.1%/24 hours at constant load and temperature. Measured after 1-hour warmup.
Tracking	During turn-on all six output voltages rise together. Risetime 10 msec.

GENERAL

Overload Protection	All outputs are protected against overload by current limit circuits. Short circuit proof. Short circuit proof. All outputs switch off within 20 msec of detected overload.
Overvoltage Protection	All outputs are protected against transient overvoltages by high current transient suppressors.
Thermal Protection	A thermal sensor shuts down the supply in the event of a thermal overload. A front-panel thermal overload light on the blower module indicates an overtemperature condition in the power supply.
Operating Range	Full 700 W output from 0 degC to 40 degC ambient temperature. Derate at -15 W/degC above 40 degC. Maximum ambient temperature 50 degC. See graph 1.

INPUT VOLTAGE:

120V AC 60Hz (103 - 130V AC).

LINE CURRENT:

14.2 Amps rms at 120 V.

WEIGHT:

52 lb. (23.6 kg).

OPTIONS:

1. MODEL 6700RMS RackMount power Supply, 3ft cable, 700 Watts
2. MODEL 7750-SCB is 7700 Package except input voltage is 220 VAC/50Hz,700Watts
3. MODEL 7700-A-SCB 60A shared current in 6700 Package, 580 Watts
4. MODEL 6700-X-SCB is 6700 Package except higher output for +/-12 and +/-24 voltages.
5. Status monitor bit