



## Power supply units

A RANGE of power supply units has been developed for television applications to meet fully both mobile and studio requirements. These include a recent design using transductors as well as the more conventional types employing series regulator valves.

### Transductor type

This new form of regulated stabilized power unit gives better efficiency and reliability than its conventional equivalent and is much smaller and lighter also.

Regulation is applied in two stages. A transductor deals with the major variations of mains input voltage and load changes of frequency below about 20 c/s. This is followed by a fast-acting shunt regulator which extends the regulation to the region of 10 kc/s. The combination of these techniques and the use of metal rectifiers result in the heat dissipation in a 1 amp. power unit being reduced to 150 watts, approximately one third of a conventional unit.

The unit, Type BD 893 is assembled on a chassis suitable for rack mounting, the control circuits being carried on plug-in printed-wiring boards. These sub-units are interchangeable with others used in Type BD 863 and BD 864 cameras where this system of regulation has been successfully employed.

#### DATA SUMMARY

**Power supplies:** 107–123 V or 213–247 V, 50–60 c/s, single-phase AC.

**Power consumption:** 600 W.

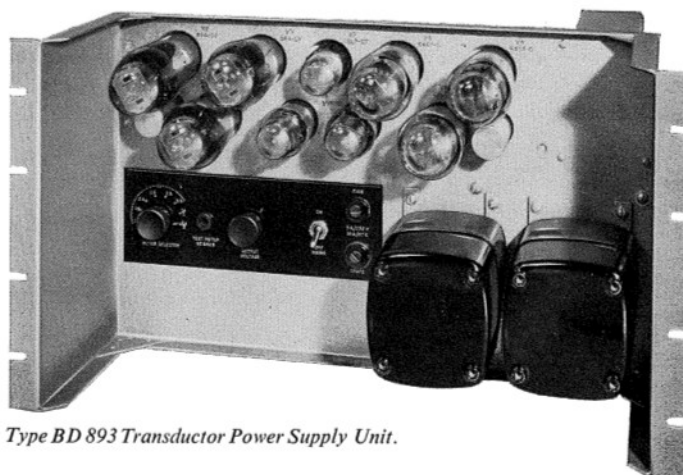
**Output volts:** 250–255 V regulated DC, 85 V negative supply, 6 V (max.) centring supply.

**Output current:** 0.9 A at 71°C, 1.1 A at 50°C.

**Regulation:**  $\geq 0.5\%$ .

**Residual ripple:**  $\geq 4$  mV p-p.

**Dimensions:** Height 8½ in. (22 cm)  
Width 1 ft 7 in. (48 cm)  
Depth 1 ft 4 in. (41 cm)  
Weight 80 lb (36 kg)



Type BD 893 Transductor Power Supply Unit.

8159

### Conventional type

The conventional regulated power unit Type BD 654 has been in service in television applications for some years. It has shown itself to be capable of long and strenuous operation in many parts of the world.

#### DATA SUMMARY

**Power supplies:** 105–122 or 210–244 V 50–60 c/s, single-phase AC.

**Power consumption:** 0.35 kVA.

**Output volts:** 230–270 V regulated DC or 330 V unregulated DC 10 V centring supply.

**Output current:** 0.4 A max. 0.06 A min.\*

**Regulation:**  $\geq 1\%$ .

**Residual ripple:** Regulated  $\geq 5$  mV p-p.  
Unregulated  $\geq 2$  V p-p.

**Dimensions:** Height 10½ in. (27 cm)  
Width 19 in. (48 cm)  
Depth 9½ in. (24 cm)  
Weight 49 lb (22 kg)

\* Unregulated.

### Relay Power Units

For the operation of Relay Vision Mixers, Master Control Systems and the like, rack-mounted power units are available giving a 24-volt supply. These employ metal rectifiers.

#### DATA SUMMARY

	Type BD 635	Type 2627
<b>POWER SUPPLIES</b>		
<b>Power consumption:</b>	80 VA	500 VA
<b>Output volts:</b>	24 V DC	24 V DC
<b>Output current:</b>	1 A	8 A
<b>Dimensions:</b>		
Height	7 in. (18 cm)	17½ in. (43 cm)
Width	19 in. (48 cm)	19 in. (48 cm)
Depth	13½ in. (34 cm)	17 in. (43 cm)
Weight	18½ lb (8 kg)	45 lb (20.5 kg)

#### Marconi

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