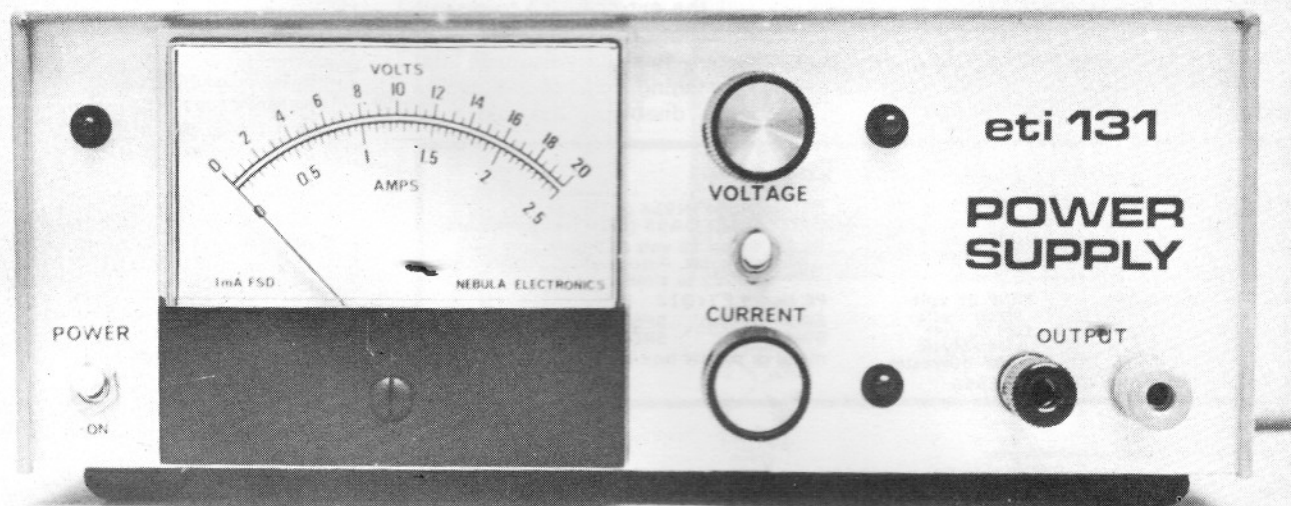


General purpose power supply

This versatile general purpose supply produces up to 2.5 amps from zero to 20 volts — or up to 1.25 amps from zero to 40 volts. Current limiting is adjustable over the entire range for either output option.



SPECIFICATION – ETI 131

20 VOLT VERSION

VOLTAGE

Output	0–20 volts
Regulation	< 20 mV (0–2.5A)
Ripple and noise	< 1 mV at 2.5A

CURRENT

Output	0–2.5A (up to 18 V)
	0–2.0A (up to 20 V)
Limit	0–2.5A
Regulation	< 10 mA (0–20 V)

40 VOLT VERSION

VOLTAGE

Output	0–40 V
Regulation	< 20 mV (0–1.25A)
Ripple and noise	< 1.5 mV at 1.25A

CURRENT

Output	0–1.25A
Limit	0–1.25A
Regulation	< 10 mA (0–40 V)

In both versions LEDs indicate voltage or current modes and the meter is switchable to read voltage or current.

AN IDEAL POWER SOURCE

should supply a voltage which is adjustable over a wide range, and which remains at the set voltage regardless of line voltage or load variations. The supply should also be undamaged by a short circuit across its output and be capable of limiting the load current so that devices are not destroyed by fault conditions.

Two such supplies have previously been described in ETI. The first was a simple supply providing 0 to 15 volts at up to 750 mA. The second was a dual tracking supply providing ± 20 volts at up to one ampere. Both these supplies have been extremely popular, especially the simple one, and are still being built by many people. However there have been many requests for a supply having a greater output current capability than either of these previous designs could provide.

This project describes a supply that will provide 2.5 amperes at up to 18 volts (up to 20 volts at lower currents).