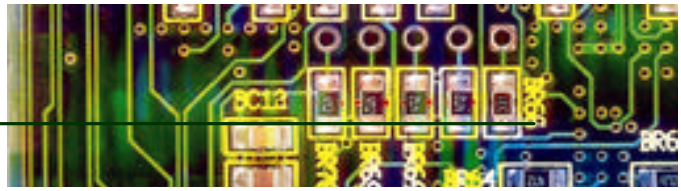
Hameg 7044



Programmable Power Supply

Technique
The programmable laboratory power supply **HM7044** comes equipped with four independent and isolated power sources. Each output voltage is continuously variable between 0-32V up to 3 A. All outputs can be connected in series (up to 128V, 3A max.) or in parallel for a higher current output (up to 12A). Voltage tracking can be used with up to four outputs. User-defined voltage and current settings and an extensive set of protection features have been included, making the **HM7044** a versatile and reliable instrument especially in R&D applications.

Voltage source or current source
The power supply can act either as voltage source or as current source, depending on the load conditions and output values. Voltage and current settings are made by the rotary dial, key pad or via the RS-232 interface.

Programmable current fuses
All outputs are equipped with an electronic current fuse. Over current limit values can be set by the user. When a limit value is reached, power is removed from the output within less then one millisecond. An overload in one output will shut down all other outputs simultaneously or up to four outputs pre-selected by the user. This is an important feature to protect the device under test from overload, especially for applications requiring positive and negative balanced voltages such as operational amplifiers.

Pre-set configurations
For repeatable calibration and adjustment procedures in production environments user-defined voltage, current and fuse settings are recalled by only one front panel setting.

Sense mode
Voltage and current are constantly monitored by a sense controller. With the sense lines, voltage is directly measured at the load and used to compensate any voltage drop across the supply lines. If any of the sense or supply lines is interrupted, the result will be displayed on the corresponding display. On production lines, cables of several meters between the power supply and the device-under-test (DUT) are continuously monitored for safe operation.

Operating comfort
An additional operating benefit is that the output power of all outputs or only user-defined outputs can be turned on and off with only one front panel key. So the entire power supply need not be switched off (Standby mode).

Reliability
Reliability of power supplies is of extreme importance. The **HAMEG** programmable power supplies are designed and manufactured for years of trouble-free life.

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Specifications

Output I, II. III, IV with identical specs

Constant Voltage Source

- **Voltage Setting:** 0-32V DC
- **Resolution:** 10mV, 4-digit display
- **Setting Accuracy:** 0.1% ±2 digit
- **Ripple (rms):** <1mV, voltage reg.

Constant Current Source

- **Current Setting:** 5mA-3A
- **Resolution:** 1mA, 4 digit display
- **Setting Accuracy:** 0.05% ±4 digit
- **Ripple (rms):** <1mV / 100µA current reg.

Parallel Mode

- **Voltage:** 32V max.
- **Current:** 12A max.
- **Power:** 384W

Serial Mode

- **Voltage:** 128V max.
- **Current:** 3A max.
- **Power:** 384W

Tracking Mode

- Voltage tracking with 4 outputs

Electronic Fuses

- **Current Setting:** 5mA-3A, each output switchable
- **Number of Fuses:** 4, each output switch able

Programmable Output Inhibit

- On over current at one output, up to four outputs can be disconnected from load, selected by the user

Outputs Inhibit Switch

- All pre-selected outputs are switched off with one push-button

7-Segment Displays

- 8 displays, 4-digit voltage and current display

LED Indicators

- Output enabled;
- Current Limit enabled;
- Fuse enabled;
- Output On

Interface

- Serial RS-232 for PC connection Command-Processing Time: 100ms, until output voltage begins to change following receipt of digital data

General Data

Internal Resistance

- **Static:** 7mΩ typical
- **Dynamic:** 200mΩ typical
- **Load Regulation:** 10ms, step change in load current from 5mA to 1.5A To recover within 100mV of its previous level
- **Stability:** 0.1mV, at line voltage variation of up to 10% at <80W
- **Temperature Coefficient:** 100ppm/°C
- **Over-Current Switch Off:** <1ms at an output power step change from 96 W to 0W.
- **DC Floating Voltage:** ±150V, outputs to chassis ground
- **Power Consumption:** 530W ≅ 384W output power
- **Ambient Temperature:** 10°C to +40°C
- **Relative Humidity:** 10 to 90%, without condensation
- **Line Voltage:** 115/230V +-10%, 50-60Hz
- **EMC Emission:** VDE0871; CISPR11;
- **EMC Susceptibility:** IEC 801
- **Safety:** Class I (ICE1010-1, VDE0411)
- **Weight:** approx. 8.5kg
- **Dimensions:** W 285 H 125 D 380mm

Accessories supplied:
Line cord, Operating Manual

Specifications subject to change without notice.

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