Triple Power Supply HM7042-3

- **2x0-32V, 2A; 1x2.7-5.5V, 5A**
- **Floating Outputs**
- **Digital Displays for Voltage and Current**
- **Adjustable Current Limiter**
- **Parallel and Serial Operation**
- **Output Power up to 156W**
- **Thermal Overload Protection**
- **Temp. Compensated Fan**

The **HM7042-3** Triple Power Supply is a compact instrument developed for current and voltage supply requirements in the laboratory field. The unit is manually controlled featuring linear voltage regulation with low ripple and noise. This newly designed instrument combines DC/DC converters as pre regulator followed by a linear voltage regulator. Three independent floating voltages deliver a total output power of maximum **156W**. Either output can be combined in a **series** or a **parallel** connected array to either increase the current or voltage capability.

The output current and voltage is continuously variable in one range from 0V to **32V** and 50mA to **2A**. In addition to the two voltages, the **HM7042-3** has an additional output that is rated at **5A** and variable between **2.7V** and **5.5V**. The change over from voltage control to current control is performed automatically, based on the load, and is indicated via LEDs. All outputs can be switched On/Off simultaneously with the push of the output button. When a current limit value is reached, power is removed from the output to protect sensitive circuits.

The **HM7042-3** posses every safety feature necessary to ensure problem free operation. The built in fan is temperature controlled and starts operating after 40°C is reached inside the instrument. Due to its high quality standard, the **HM7042-3**, which is stackable with other **HAMEG** instruments, will always be a cost effective alternative which rivals other, more expensive units.

Specifications

(Reference Temperature: 23°C ± 1°C)

DC Voltage Sources 0 to 32V

Range (each): 0 to 32V, continuously variable with coarse and fine voltage output controls
Resolution: 100mV
Output current: 2x 0 to 2A
Current limit range: 2x <0.05 to 2A continuously adjustable
Resolution: 1mA (0-1999mA), 10mA (≥ 2A)

DC Voltage Source 2.7V – 5.5V

Range: 2.7V to 5.5V (±0.1V) continuously variable
Resolution: 10mV
Output current: 0 to 5A
Current limit range: 0.05 to 5A
Resolution: 10mA

General Information

Internal resistance: (static) typ. 7mΩ dynamic typ. 200mΩ
Stability: ≤ 2.5mV at line voltage variations of up to 10%
Regulating time: ≤ 80ms
Load regulation: ≤ 0.05%
Temperature coefficient: ≤ 0.1%/°C
Ripple and noise: ≤ 1mV$_{rms}$ (f_{upper} 100 kHz)
All outputs floating. Series connection of all outputs possible (max. potential ±100V with respect to chassis and/or protective earth). Outputs are switchable from the front panel.
Built in overheating protection and fan.
Operating modes: constant voltage (CV) constant current (CC) over current protection

Display

Six digit 7 segment LED displays with separate indication or voltage and current; Current limit indicator

Miscellaneous

Line voltage: 115/230V AC ±10%, 50/60Hz
Power consumption: approx. 250 Watt at full load
Min./Max. ambient temperature: 0°C...+40°C
Protective system: Safety class I (IEC 1010-1)
Weight: approx. 6kg, color: techno-brown
Cabinet: **W** 285, **H** 75, **D** 365 mm

Accessories supplied: Line Cord, Operators Manual

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