Power supplies

Type/designation	V$_{max}$	I$_{max}$	P$_{max}$	Overvoltage protection	Resolution	Remote control
R&S®HMC8041/8042/ 8043 power supply	▪ 1 × 32 V (R&S®HMC8041) ▪ 2 × 32 V (R&S®HMC8042) ▪ 3 × 32 V (R&S®HMC8043)	▪ 3 A (R&S®HMC8041) ▪ 5 A (R&S®HMC8042) ▪ 10 A (R&S®HMC8043)	100 W	adjustable for each channel	▪ 1 mV ▪ 0.1mA (I < 1 A) ▪ 1 mA (I ≥ 1 A)	▪ USB-TMC, USB-CDC (Virtual COM), LAN (LXI) ▪ optional: IEEE-488 (GPIB)
HM8143 three-channel arbitrary power supply	▪ 2 × 30 V ▪ 1 × 5 V	3 × 2 A	130 W	–	▪ 10 mV ▪ 1 mA	▪ RS-232/USB ▪ optional: IEEE-488 (GPIB)
HMP2020/HMP2030 programmable two/three-channel power supply	▪ 2 × 32 V (HMP2020) ▪ 3 × 32 V (HMP2030)	▪ 1 × 10 A/1 × 5 A (HMP2020) ▪ 3 × 5 A (HMP2030)	188 W	adjustable for each channel	▪ 1 mV ▪ 0.2 mA (I < 1 A), 1 mA (I ≥ 1 A) (HMP2020) ▪ 0.1 mA (I < 1 A), 1 mA (I ≥ 1 A) (HMP2030)	▪ RS-232/USB ▪ optional: Ethernet/USB, IEEE-488 (GPIB)
HMP4030/HMP4040 programmable three/four-channel power supply	▪ 3 × 32 V (HMP4030) ▪ 4 × 32 V (HMP4040)	▪ 3 × 10 A (HMP4030) ▪ 4 × 10 A (HMP4040)	384 W	adjustable for each channel	▪ 1 mV ▪ 0.2 mA (I < 1 A), 1 mA (I ≥ 1 A)	▪ RS-232/USB ▪ optional: Ethernet/USB, IEEE-488 (GPIB)

R&S®HMC8041/8042/8043 Power Supply

Key facts

■ High energy efficiency, low heat dissipation and quiet fans
■ Low residual ripple due to linear postregulation
■ Convenient parallel and serial operation via V/I tracking
■ Overvoltage protection (OVP) for all outputs
■ Overpower protection (OPP) for all outputs
■ FuseLink (freely combinable electronic fuses)
■ EasyArb function for user-definable V/I curves
■ EasyRamp for simulating a start-up curve (directly programmable on device)
■ Sequencing (sequenced start of channels)
■ Analog input for external control via voltage (0 V to 10 V) and current (4 mA to 20 mA)
■ Trigger input for starting/controlling EasyArb
■ Data logging to USB flash drive in CSV format

100 W and one, two or three channels

One, two or three channels – the R&S®HMC804x power supplies with their specifications and wide range of functions are ideal for use in development labs and industrial environments. Thanks to their high energy efficiency, the linear power supplies remain cool and quiet, even at maximum load. Practical interfaces and connectors allow users to work quickly and conveniently with the R&S®HMC804x, even in 19" racks.

Models/options

Designation	Type
Power Supply, 3 channels, 99 W (33 W/channel, 3 A (max.)), with GPIB interface	R&S®HMC8043G
Power Supply, 3 channels, 99 W (33 W/channel, 3 A (max.)), without GPIB interface	R&S®HMC8043
Power Supply, 2 channels, 100 W (50 W/channel, 5 A (max.)), with GPIB interface	R&S®HMC8042G
Power Supply, 2 channels, 100 W (50 W/channel, 5 A (max.)), without GPIB interface	R&S®HMC8042
Power Supply, 1 channel, 100 W (10 A (max.)), with GPIB interface	R&S®HMC8041G
Power Supply, 1 channel, 100 W (10 A (max.)), without GPIB interface	R&S®HMC8041

Application	How the R&S®HMC8041/8042/8043 meets your needs
Engineering lab	■ FuseLink (freely combinable electronic fuses) ■ EasyArb function for user-definable V/I curves ■ EasyRamp for simulating a start-up curve (directly programmable on device) ■ Built-in energy meter ■ Data logging to USB flash drive in CSV format
Automatic test equipment (ATE)	■ Analog input for external control via voltage (0 V to 10 V) and current (4 mA to 20 mA) ■ Trigger input for starting/controlling EasyArb ■ Sequencing (sequenced start of channels)
Production environment	■ Rear connectors for all channels, including SENSE ■ WAGO cage clamp on rear panel for easy installation and deinstallation ■ Remote control via SCPI-based commands ■ LAN interface, integrated web server, LXI-compliant ■ Optional GPIB interface (R&S®HMC804xG models)

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HM8143 Three-Channel Arbitrary Power Supply

The most versatile power supply

❙ 2 × 0 V to 30 V/1 × 5 V, 3 × 2 A (130 W)
❙ Realtime voltage and current values
❙ Linear regulated, two-quadrant power supply (current source and sink)
❙ Setting and readback resolution: 10 mV, 1 mA
❙ Electronic fuse and tracking
❙ Advanced parallel (up to 6 A) and serial (up to 65 V) operation
❙ Front connectors: 4 mm (0.16 in) safety sockets
❙ SENSE connectors for line loss compensation (30 V channels)
❙ External modulation of output voltages up to 50 kHz
❙ Arbitrary module: 4096 points, 12 bit
❙ RS-232/USB dual interface, optionally IEEE-488 (GPIB)

Models/options

Designation	Type
Three-Channel Arbitrary Power Supply	HM8143
IEEE-488 (GPIB) Interface Card	HO880

Application	How the HAMEG HM8143 meets your needs
Engineering labs	❙ Up to 30 V, 2 A per regulated channel ❙ Linear regulated power unit ❙ SENSE inputs for compensation of lead resistances ❙ External modulation up to 50 kHz
Production environment	❙ Trigger and modulation connectors (BNC) ❙ Full remote control, several interfaces available, LabVIEW
Simulation of charging processes of batteries	❙ Free PC software to program arbitrary waveforms ❙ Usable as source and sink

HMP2020/HMP2030 Programmable Two/Three-Channel Power Supply

Key facts
- HMP2020: 1 × 0 V to 32 V/0 A to 10 A; 1 × 0 V to 32 V/0 A to 5 A (188 W)
- HMP2030: 3 × 0 V to 32 V/0 A to 5 A (188 W)
- Low residual ripple due to linear postregulators
- Realtime voltage, current and power values
- High setting and readback resolution: 1 mV and 0.1/0.2/1.0 mA (depending on current and model)
- FuseLink (electronic fuse) freely combinable for all channels
- FuseDelay tunable up to 250 ms
- EasyArb function directly programmable on device
- PC software (free of charge) for easy generation of user-defined waveforms
- Independently adjustable overvoltage protection (OVP) for each channel
- Advanced parallel and serial operation via V/I tracking
- Front connectors: 4 mm (0.16 in) safety sockets
- Rear connectors for all channels including SENSE
- RS-232/USB dual interface, remote control via SCPI-based commands

Models/options	
Designation	**Type**
Programmable Two-Channel Power Supply	HMP2020
Programmable Three-Channel Power Supply	HMP2030
Dual Ethernet/USB Interface	HO730
IEEE-488 (GPIB) Interface, galvanically isolated	HO740

Application	How the HAMEG HMP2020/HMP2030 meets your needs
Engineering labs	• Up to 32 V and up to 10 A per channel • SENSE inputs • Overcurrent protection freely combinable with other channels (FuseLink)
Production environment	• All outputs and SENSE inputs available on rear of device • Remote control using RS-232/USB interface as standard, Ethernet or GPIB as an option
Simulation of charging processes of batteries	• Easy-to-program arbitrary V/I curves

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HMP4030/HMP4040 Programmable Three/Four-Channel Power Supply

Key facts

- HMP4030: 3 × 0 V to 32 V/0 A to 10 A (384 W)
- HMP4040: 4 × 0 V to 32 V/0 A to 10 A (384 W)
- Low residual ripple due to linear postregulators
- Realtime voltage, current and power values
- High setting and readback resolution: 1 mV and 0.1/0.2/1.0 mA (depending on current and model)
- FuseLink (electronic fuse) freely combinable for all channels
- FuseDelay tunable up to 250 ms
- EasyArb function directly programmable on device
- PC software (free of charge) for easy generation of user-defined waveforms
- Independently adjustable overvoltage protection (OVP) for each channel
- Advanced parallel and serial operation via V/I tracking
- Front connectors: 4 mm (0.16 in) safety sockets
- Rear connectors for all channels, including SENSE
- RS-232/USB dual interface, remote control via SCPI-based commands

Models/options

Designation	Type
Programmable Three-Channel Power Supply	HMP4030
Programmable Four-Channel Power Supply	HMP4040
Dual Ethernet/USB Interface	HO730
IEEE-488 (GPIB) Interface, galvanically isolated	HO740

Application	How the HAMEG HMP4030/HMP4040 meets your needs
Engineering labs	- Up to 32 V and up to 10 A per channel - SENSE inputs - Overcurrent protection freely combinable with other channels (FuseLink)
Production environment	- All outputs and SENSE inputs available on rear of device - Remote control using RS-232/USB interface as standard, Ethernet or GPIB as an option
Simulation of charging processes of batteries	Easy-to-program arbitrary V/I curves