R&S®NGM200 Power Supply Series

High-speed accuracy

The perfect choice for

- Battery tests
- Power consumption tests
- Simulation of voltage drops
- Supplying sensitive designs

Key specifications	R&S®NGM201	R&S®NGM202
Number of channels	1	2
Max. output power	60 W	120 W
Output power per channel	max. 60 W	
Output voltage per channel	0 V to 20 V	
Output current per channel	≤ 6 V: 6 A, > 6 V: 3 A	
Load recovery time	< 30 µs	
Max. readback resolution	1 µV/10 nA	

Key features

What sets these power supplies apart from others?

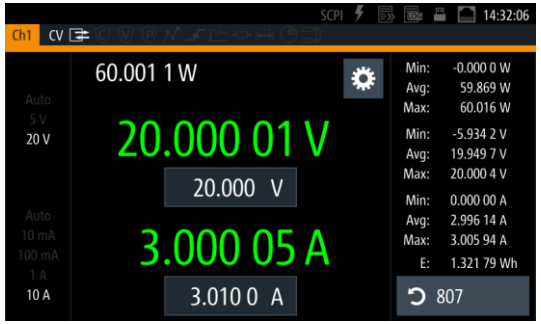
- Fast regulation of output voltage with minimum overshoot and very fast load recovery time
- Minimum residual ripple and noise to supply interference-free voltage to sensitive DUTs
- Acquisition rate of up to 500 ksample/s to capture extremely fast variations in voltage or current
- High accuracy and readings with up to 6½ digit resolution
- Two quadrants: operates as source or sink
- Battery simulation

Your benefit	Features
Minimal overshoot from abrupt load changes	▮ Optimized load recovery time < 30 µs ▮ Handles abrupt load changes from a few µA to the ampere range without creating voltage drops or overshoots
Supply interference-free voltage to sensitive designs	Low ripple and noise values allow you to supply interference-free voltage to sensitive designs such as complex semiconductors and to support the development of power amplifiers and MMICs
Capture fast variations in voltage/current	▮ Acquisition rate: up to 500 ksample/s ▮ Voltage and current results available every 2 µs ▮ On the R&S®NGM202, data acquisition on both channels in parallel
Realistic battery simulation	▮ Simulate the actual battery output performance ▮ Testing can be based on a selected battery model ▮ Battery capacity, SoC and Voc can be set to any state to test the device under specific circumstances

▷ For more information, visit
www.rohde-schwarz.com/catalog/ngm200

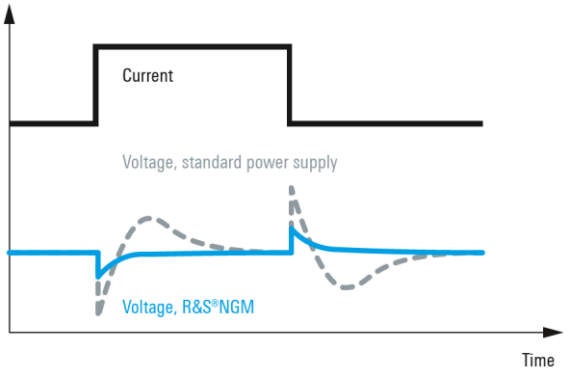
Readings with up to 6½ digit resolution

With a resolution of up to 6½ digits when measuring voltage, current and power, the R&S®NGM200 power supplies are perfect for measurements on devices that have low power consumption in standby mode and high current in full load operation. Two voltage measurement ranges and four current measurement ranges provide a high accuracy and resolutions down to 1 µV/10 nA.



The high-resolution display provides additional information such as power values and statistics.

Optimized load recovery time



Under challenging load conditions, most power supplies respond with slow recovery times and overshoots. Specially developed circuits in the R&S®NGM200 power supplies achieve a load recovery time of < 30 µs with minimal overshoot, making them perfect for supplying sensitive components.

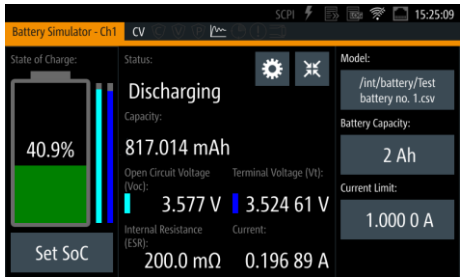
Two-quadrant operation, minimum ripple and noise

The architecture of the R&S®NGM200 power supplies allows them to function both as a source and a sink.
The instruments automatically switch between sink and source operation. In this example, channel 2 works as a load.

The linear design of the output stages reduces residual ripple and noise to a minimum and makes them perfect for the development of power amplifiers and MMICs.

Battery simulation

When battery-operated devices have to be optimized for lifecycle, the discharging behavior of the used battery type needs to be considered. The battery simulator function makes it possible to simulate the real battery output performance. Testing can be based on a selected battery model, while battery capacity, SoC and Voc can be set to any state to test the device under specific circumstances.



The charging behavior of a battery can also be simulated, for example when designing battery chargers. In this application, the R&S®NGM200 is used in sink mode.

Easy operation

The high-resolution capacitive touchscreen is the central operating element for the R&S®NGM200 power supplies. Icons clearly show the status of set protection or special functions. When the power supply is in constant voltage mode, the numbers and the keys light up green. Red is used for constant current mode. The Output key lights up blue to indicate that the channels are switched on (active).

Ordering information

Base unit	
Single-channel power supply	R&S®NGM201
Two-channel power supply	R&S®NGM202
Hardware options	
IEEE-488 (GPIB) interface	R&S®NGM-B105
Software options	
Wireless LAN remote control	R&S®NGM-K102
Digital I/O trigger	R&S®NGM-K103
Digital voltmeter functionality	R&S®NGM-K104
Battery simulation	R&S®NGM-K106
System components	
19" rack adapter, 2 height units	R&S®HZN96

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