

# N351 Bidirectional Programmable DC Power Supply

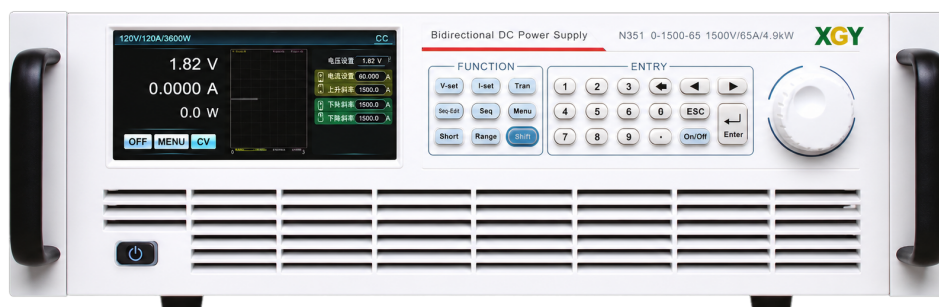
Dual-quadrant regenerative DC power supply for source/load testing up to 7.5 kW

## At a Glance

N351 integrates bidirectional DC source output and regenerative load absorption in one compact programmable platform.

The family covers 2.5 kW, 5 kW, and 7.5 kW power classes with 40 V and 80 V voltage options and bidirectional current capability.

PV simulation, battery simulation, sequence testing, charge/discharge testing, CC, CV, CR, and CP modes support new-energy and automated-test workflows.



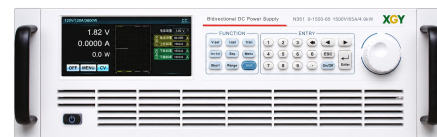
**XGY**

# N351 Bidirectional Programmable DC Power Supply

## Product Overview

N351 is designed for tests that need current to flow both from the supply to the DUT and from the DUT back to the grid. Regenerative operation can reduce heat dissipation and improve test-system efficiency.

The 1U chassis combines high power density with standard LAN, RS232, RS485, and CAN interfaces for laboratory and ATE integration.



## Key Features

- **Bidirectional Source And Load**

Dual-quadrant operation provides smooth transition between sourcing and absorbing current.

- **Regenerative Efficiency**

Absorbed energy can be returned to the grid, with regenerative efficiency up to 90% according to the source.

- **Power Density**

Up to 7500 W is integrated in a 1U chassis for compact systems.

- **Simulation Software**

PV matrix I-V curve simulation and battery simulation software options support renewable-energy and battery workflows.

- **Control Modes**

CC, CV, CR, CP, CC/CV priority, adjustable slew rate, sequence, and charge/discharge tests are supported.

- **Interfaces**

LAN, RS232, RS485, and CAN are standard, with Modbus-RTU, CANopen, and SCPI protocol support.

## Application Fields

### Energy Storage

Outdoor storage, UPS, and battery-driven equipment tests.

### Motor And Drive

Inverters, drives, motor controllers, and low-to medium-power motor tests.

### EV Electronics

Vehicle inverters, circulation pumps, automotive electronics, and DC-DC modules.

### Renewable Energy

PV inverter and solar-cell matrix simulation with static and dynamic test modes.



## Operating Capabilities

**PV And Battery Simulation:** With NS91000, the supply can simulate I-V and P-V curves for solar-cell matrices and support static/dynamic maximum power point tracking tests. With NS81000 battery simulation software, users can select standard battery libraries or import measured custom curves for simulation.

**CC/CV Priority:** Voltage-loop or current-loop priority can be selected to reduce overshoot for DC-DC module startup, battery charging, and other low-impedance DUTs.

# Selection Summary

| Model         | Voltage | Current  | Power  |
|---------------|---------|----------|--------|
| N35125-40-100 | 40 V    | +/-100 A | 2500 W |
| N35150-40-200 | 40 V    | +/-200 A | 5000 W |
| N35175-40-300 | 40 V    | +/-300 A | 7500 W |
| N35125-80-55  | 80 V    | +/-55 A  | 2500 W |
| N35150-80-110 | 80 V    | +/-110 A | 5000 W |
| N35175-80-170 | 80 V    | +/-170 A | 7500 W |

## Core Specifications

| Core Ratings And Functions |                                           |
|----------------------------|-------------------------------------------|
| Power range                | 2.5 kW / 5 kW / 7.5 kW                    |
| Voltage range              | 40 V / 80 V                               |
| Current range              | +/-55 A to +/-300 A by model              |
| Operating modes            | CC, CV, CR, CP; source and load operation |
| Display                    | 3.2-inch HD color screen                  |
| Standard interfaces        | LAN, RS232, RS485, CAN                    |
| Protocols                  | Modbus-RTU, CANopen, SCPI                 |

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*Specifications subject to change without notice. Per AS/NZS standards.*