N355 High Power Bidirectional Programmable DC Power Supply

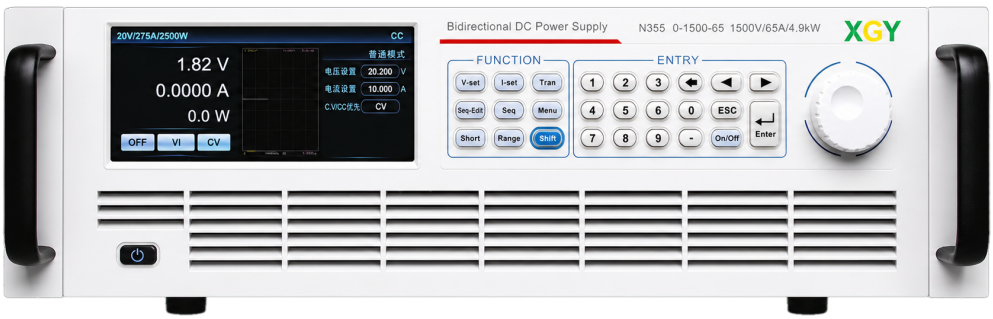
High-power regenerative DC source/load platform with voltage coverage up to 2250 V

At a Glance

N355 combines bidirectional programmable DC source output and regenerative load absorption for high-power DUT testing.

The family covers voltage options from 360 V to 2250 V and scalable power classes from 14 kW to 420 kW.

Fast dynamic response, high output accuracy, PV simulation, battery simulation, and parallel expansion support demanding ATE applications.



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Product Overview

N355 is intended for high-power test scenarios that need source and sink capability in one programmable DC platform.

With up to 42 kW in a 3U chassis and master/master parallel capability to MW-level systems, it supports both lab validation and production-line ATE.

Key Features

- **High Power Density**
  Up to 42 kW output is provided in a 3U chassis.
- **Wide Voltage Coverage**
  Source documents list 360 V, 500 V, 750 V, 1000 V, 1500 V, and 2250 V model families.
- **Regenerative Operation**
  The source/load design can return absorbed energy to the grid with efficiency up to 93%.
- **Fast Dynamics**
  Voltage rise and fall time is specified as <=5 ms.
- **Parallel Expansion**
  Master/master parallel operation supports expansion to high-power systems.
- **Control And Protocols**
  LAN, RS232, RS485, CAN, Modbus-RTU, SCPI, and CANopen are supported.

Application Fields

ATE And Production
Laboratory and production-line automatic test systems.

Automotive Power
BOBC, DC-DC, motor drive, charging pile, and power battery charge/discharge tests.

New Energy
PV inverter, hydrogen fuel cell, solar-cell matrix, and energy-storage converter tests.

High-Power Electronics
Aerospace electronics, communication equipment, drones, and high-power DUTs.

Operating Capabilities

PV And Battery Simulation: PV array I-V curve simulation and battery simulation software options support repeatable renewable-energy and battery tests. The source lists standard battery model libraries and custom curve import for battery simulation.

CC/CV Priority: Voltage-control or current-control loop priority can be selected to improve startup behavior and protect low-impedance DUTs.

Selection Summary

Voltage class	Representative power	Representative current	Size
360 V	14 kW to 420 kW	80 A to 2400 A	3U to 42U
500 V	14 kW to 420 kW	65 A to 1950 A	3U to 42U
750 V	14 kW to 420 kW	65 A to 1950 A	3U to 42U
1000 V	22 kW to 280 kW	65 A to 650 A	3U to 42U
1500 V	22 kW to 420 kW	60 A to 650 A	3U to 42U
2250 V	22 kW to 420 kW	60 A to 650 A	3U to 42U

Core Specifications

Core Ratings And Functions	
Standalone power density	Up to 42 kW in 3U
Voltage range	0 to 2250 V by model
Current range	Up to 240 A for 3U source listing; scalable by parallel/high-power model
Voltage accuracy	0.02% + 0.02% F.S.
Current accuracy	0.1% + 0.1% F.S.
Display	6.8-inch LCD screen
Standard interfaces	LAN, RS232, RS485, CAN

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