

AC Power Supplies

CATALOG



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Keysight AC Power Supplies

One family. Two performance grades. 3 classes.

Single-Phase



ESSENTIAL

NC1-class

- 500 Hz Maximum frequency
- 500 VA to 4,000 VA
Maximum power output

Three-Phase



ESSENTIAL

NC3-class

- 550 Hz Maximum frequency
- 3,000 VA to 18,000 VA
Maximum power output



PRO

NC5-class

- 5,000 Hz Maximum frequency
- 3,000 VA to 18,000 VA
Maximum power output

Introduction

Keysight AC Power Supplies — from development to manufacturing test

Keysight single-phase and three-phase AC power supplies are now offered in three capability classes across two performance grades. Essential single-phase includes the NC1-class, supporting power measurements up to 500 Hz and 4,000 VA. Essential three-phase includes the NC3-class, quadrupling the maximum power output to up to 18,000 VA. Pro three-phase includes the NC5-class, extending the maximum frequency to 5,000 Hz. Whether you're sourcing solutions for industrial systems, laboratory equipment, or commercial devices, you'll find a variety of classes engineered for efficiency, precision, and durability. Understanding which capabilities best suit your application will ensure you get the most from your AC power supply. A comprehensive library of [AC power supply resources](#) is available to help you find the performance grade and class best suited to your lab.



Precise, adjustable power for safety and reliability

AC power supplies are fundamental tools for engineering applications from component testing to safety compliance testing. Simulate real-world scenarios like voltage fluctuations with our precise and highly adjustable AC sources. Get more insights from Keysight resources to ensure that your devices meet performance, safety, and reliability standards.

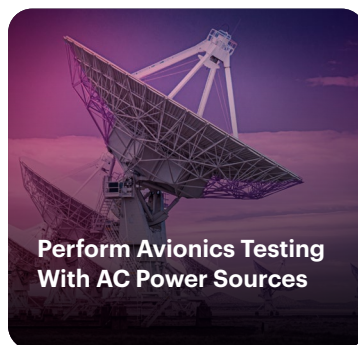
Here are a few examples of the resources you will find to help you select the AC power supply that is right for you:



**Power Sources — Efficient
Telecom Equipment
Development**



**Avionics Electronics
Power Input Pre-
Compliance Testing**



**Perform Avionics Testing
With AC Power Sources**

AC Power Supplies

Keysight AC power supplies enable you to emulate AC power for both single-phase and three-phase applications, so you can verify the performance of your electrical devices under a wide range of real-world AC power conditions. Select the AC supply you need based on the number of phases and the maximum power your device will consume. For more complex needs, Pro three-phase AC power sources provide a complete AC and DC power solution, integrating the capabilities of a multimeter, harmonic analyzer, and power analyzer in one instrument. You can easily produce DC power, either independently or as a DC offset to an AC waveform, ensuring comprehensive testing. Explore our wide range of AC power supplies from Essential to Pro performance grades to find the one that is right for your application.



Essential single-phase
NC1-class



Essential three-phase
NC3-class



Pro three-phase
NC5-class

Maximum frequency	500 Hz	550 Hz	5,000 Hz
Maximum power output	500 VA to 4,000 VA	3,000 VA to 18,000 VA	3,000 VA to 18,000 VA
Maximum current per output	15 A to 120 A	40 A to 240 A	40 A to 240 A
Maximum voltage per output	452 V	452 V	452 V
Brands included	AC6800 Series	AC6900L Series	AC6900H Series

Explore

Explore

Explore

Essential Single-Phase AC Power Supplies

Versatile, stable performance in an AC power supply

Keysight NC1-class Essential single-phase AC power supplies include the AC6800 Series. They deliver stable AC power for research and development (R&D) benches and automated test racks, including applications like power simulation, frequency and voltage variation testing, and power factor correction. Our AC single-phase power supplies support power measurements up to 4,000 VA and adjustable AC power with an easy-to-use interface for quick setup and operation. Additional features include adjustable output voltage and frequency, overvoltage, overcurrent, and overpower protection. Choose one of our popular configurations or configure one specific to your application.

[Learn more about our single-phase AC power supplies](#)

Real-world simulation

Simulate AC power from 500 VA to 4 kVA with varying voltages and frequencies for development, manufacturing, and maintenance.

Versatile remote monitoring

Remote access and control are available via web browser, so you can monitor and adjust settings from anywhere.

Flexible connectivity

Configure and control with industry-standard LAN and USB ports, LXI Core interfaces, plus the flexibility of an optional GPIB interface.

Quick, intuitive setup

View setup and measurement data on the front panel or programmatically for efficient control, monitoring, and integration into automated test systems.

Class	Included Brands	Range of Performance Specifications			
		Maximum Frequency	Maximum Power Output	Maximum Current per Output	Maximum Voltage per Output
NC1	AC6800 Series	500 Hz	500 VA to 4,000 VA	15 A to 120 A	452 V

[View popular configurations](#)

Essential Three-Phase AC Power Supplies

A complete AC and DC power solution

Keysight NC3-class Essential three-phase power supplies include the AC6900L Series. They offer a complete three-phase AC and DC power solution with integrated capabilities of a multimeter, harmonic analyzer, and power analyzer in a single instrument. Our Essential three-phase AC power supplies are ideal for testing air traffic systems, sensors, and industrial equipment. They also support power grid simulations and ensure that your designs meet international standards. Built-in power damage protection and line disturbance simulation ensure your devices withstand real-world power fluctuations. Choose one of our popular configurations or configure one specific to your application.

[Learn more about our Essential three-phase AC power supplies](#)

4 instruments in 1

This complete AC and DC power solution incorporates power supply, multimeter, harmonic analyzer, and power analyzer capabilities in a single compact instrument.

Avionic standards test

With 3 kVA to 18 kVA power, you can test a wide range of avionics systems, including RTCA DO-160 and MIL-STD-704 compliance with frequency up to 400 Hz.

Remote operation

Remote connectivity software lets you create test steps and capture and display voltage and current amplitude and phase waveform data on a PC.

DUT damage protection

Features include overcurrent, overvoltage, and overtemperature protection, as well as output disconnect relays and remote inhibit capabilities to protect your DUT.

Class	Included Brands	Range of Performance Specifications			
		Maximum Frequency	Maximum Power Output	Maximum Current per Output	Maximum Voltage per Output
NC3	AC6900L Series	550 Hz	3,000 VA to 18,000 VA	40 A to 240 A	452 V

[View popular configurations](#)

Pro Three-Phase AC Power Supplies

High-frequency power for complex applications

Keysight NC5-class Pro three-phase AC power supplies include the AC6900H Series. They go beyond basic power, with high-frequency models that generate power output at frequencies up to 5 kHz. The high-frequency capabilities are critical in applications like high-precision harmonic analysis, enhanced renewable energy testing, avionics, and industrial systems. Like our Essential models, our Pro models include a built-in multimeter, harmonic analyzer, and power analyzer, but the added frequency makes them ideal for testing state-of-the-art avionics equipment that requires testing with frequencies beyond 400 Hz. Choose one of our popular configurations or configure one specific to your application.

[> Learn more about our Pro three-phase AC power supplies](#)

Elevated avionics test

Test military and aerospace systems that use power at frequencies beyond 400 Hz. For example, MIL-STD-704 can require testing up to 800 Hz and beyond for certain aircraft.

High-frequency simulation

With frequency up to 5 kHz and high power, you can simulate variable frequency AC systems used in electric aircraft to reduce weight and boost efficiency.

Motor drive and inverter test

Our Pro line is ideal for testing high-speed motors and inverters, ensuring accurate analysis of frequency response, control, and efficiency in aerospace and industrial applications.

Accurate harmonic analysis

Harmonic analysis up to the 50th order ensures precise detection and evaluation of power quality issues caused by nonlinear loads and electrical disturbances.

Class	Included Brands	Range of Performance Specifications			
		Maximum Frequency	Maximum Power Output	Maximum Current per Output	Maximum Voltage per Output
NC5	AC6900H Series	5,000 Hz	3,000 VA to 18,000 VA	40 A to 240 A	452 V

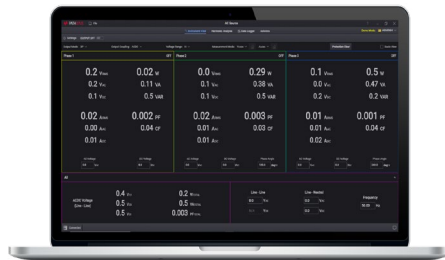
[View popular configurations](#)

Software and Accessories

Find compatible software and accessories for your AC power supplies

Explore the software that enables you to configure voltage, frequency, and waveforms while capturing real-time power analysis data. The software enhances measurement capabilities, enabling users to control and analyze AC source data and understand power-draw-related events. It also enables remote connectivity. Connect to the instruments via LAN or WLAN for seamless control of lab equipment from anywhere. With these capabilities, you can efficiently manage your AC sources and streamline pre-compliance testing, ensuring adherence to avionics and military-standard requirements.

Most AC supplies offer expansion boards for digital control, analog signal operations, or GPIB interface support. Pro three-phase models can be deployed in parallel for higher capacity using parallel synchronization cables. All models offer digital and analog interface connectors. Find the accessories that are right for your lab environment below.



Enhance your AC power supplies with a wide range of specialty software:

- transient response analysis
- power grid simulation
- phase angle and power factor analysis
- data logging analysis
- harmonic analysis

[Explore software](#)



Get more functionality out of your AC power supplies by pairing them with the right accessories:

- parallel operation cable
- synchronization cable
- digital interface connector
- rack-mount flange kit
- analog interface connector
- GPIB interface board

[Explore accessories](#)

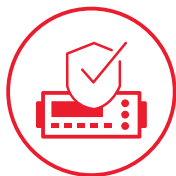
Keysight Support Services

Explore the services that are right for you

Keysight Support Services can reduce your learning curve, enhance your uptime, guarantee the accuracy of your testing equipment, and provide the expertise you require, precisely when and where you need it.

Maximize your instrument uptime, quickly optimize your test measurements, and get the answers you need at our fastest available times. KeysightCare curated support plans bundle critical services with prioritized response and turnaround times. **High-performance instruments include one year of KeysightCare Assured.**

Explore support services



Calibration

Ensure your test system performs to specification and meets local and global standards.



Repair

Restore equipment to original functionality and specifications with trained technicians.



KeysightCare

Innovate at speed with curated support plans and prioritized response and turnaround times.



Education

Make measurements quickly with eLearning and in-house, instructor-led training.



Keysight Support

Get 24x7 access to service requests, case management help, and technical articles.



Keysight enables innovators to push the boundaries of engineering by quickly solving design, emulation, and test challenges to create the best product experiences. Start your innovation journey at www.keysight.com.

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