

# **AC Power Sources Market – Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Type (Single Phase, Three Phase, Pulse Width Modulation, Linear), By Application (Oil & Gas, Energy & Power, Automotive, Healthcare, Others), By Region, By Competition, 2020-2030F**

<https://marketpublishers.com/r/A425012AD513EN.html>

Date: June 2025

Pages: 188

Price: US\$ 4,500.00 (Single User License)

ID: A425012AD513EN

## **Abstracts**

### Market Overview

The Global AC Power Sources Market was valued at USD 1.3 Billion in 2024 and is projected to reach USD 1.7 Billion by 2030, growing at a CAGR of 4.2% during the forecast period. Market growth is being supported by rapid industrialization and urbanization, particularly in emerging regions such as Asia-Pacific and Latin America. These developments are fueling demand for stable and programmable AC power solutions across manufacturing, testing, and operational applications. As automation and Industry 4.0 adoption increase, there is a growing need for precise and high-density power delivery in smart production environments.

The rise of electric vehicles is also contributing to the expansion of the market, particularly for battery testing and automotive component validation. Additionally, the integration of renewable energy sources into grid systems has created demand for advanced AC power sources that can accommodate fluctuating inputs from solar and wind installations. Sectors such as aerospace, defense, telecom, and medical are further driving adoption due to their critical reliability and performance requirements. Technological innovations in power electronics and digital control systems are also enabling more compact, efficient, and intelligent power systems, thereby broadening the market's appeal across diverse end-user industries.

## Key Market Drivers

### Rapid Industrialization, Automation, and Electrification Across Key End-Use Sectors

The global AC power sources market is strongly influenced by increased industrial automation and electrification. Sectors such as automotive, aerospace, medical devices, consumer electronics, and telecommunications require dependable and programmable AC power for both manufacturing processes and rigorous product testing. Industry 4.0 and the proliferation of smart factories are accelerating demand for AC power systems that can support robotic automation, PLCs, and digital quality control instruments.

Additionally, the growing adoption of electric vehicles has amplified the need for versatile AC power supplies in testing applications, such as simulating different grid conditions and validating onboard systems. These demands are fueling the adoption of programmable AC power sources capable of supporting variable voltage, frequency, and waveform simulation across a range of industrial and global standards.

## Key Market Challenges

### High Initial Cost and Complex Technology Integration

One of the primary constraints for market growth is the significant upfront cost of acquiring advanced AC power sources. These systems—especially programmable or multi-functional units—can represent a substantial capital investment due to their precision, configurability, and built-in digital communication capabilities. High-performance AC power sources require careful installation, regular calibration, operator training, and integration with digital control systems, all of which contribute to the overall cost.

This cost barrier particularly affects small and mid-sized enterprises or laboratories with limited budgets. Additionally, integrating these systems with modern automation infrastructure can be technically complex, requiring compatibility with various protocols and control platforms, as well as skilled personnel for successful implementation and maintenance.

## Key Market Trends

## Rising Adoption of Programmable and Smart AC Power Sources

The AC power sources market is witnessing a shift toward intelligent, programmable systems that allow for greater control and flexibility. These smart power sources can simulate multiple global grid conditions, manage variable loads, and provide precise control over frequency, voltage, and waveform characteristics. This is especially important in sectors like EV manufacturing, aerospace, and electronics, where compliance with multiple regional standards and rigorous test protocols is critical.

Programmable AC sources are also enhancing operational efficiency in testing labs by enabling automated test sequences and real-time adjustments, thereby improving product development timelines and reducing manual intervention. The growing use of software-defined power configurations and digital interfaces is further enhancing the relevance of programmable units in today's increasingly digital industrial landscape.

### Key Market Players

Keysight Technologies, Inc.

AMETEK Programmable Power, Inc.

Chroma ATE Inc.

Pacific Power Source, Inc.

Matsusada Precision Inc.

B&K Precision Corporation

Good Will Instrument Co., Ltd.

Yokogawa Electric Corporation

### Report Scope:

In this report, the Global AC Power Sources Market has been segmented into the

following categories, in addition to the industry trends which have also been detailed below:

#### AC Power Sources Market, By Type:

Single Phase

Three Phase

Pulse Width Modulation

Linear

#### AC Power Sources Market, By Application:

Oil & Gas

Energy & Power

Automotive

Healthcare

Others

#### AC Power Sources Market, By Region:

North America

United States

Canada

Mexico

Europe

Germany

France

United Kingdom

Italy

Spain

Asia Pacific

China

India

Japan

South Korea

Australia

South America

Brazil

Colombia

Argentina

Middle East & Africa

Saudi Arabia

UAE

South Africa

## Competitive Landscape

Company Profiles: Detailed analysis of the major companies present in the Global AC Power Sources Market.

## Available Customizations:

Global AC Power Sources Market report with the given market data, TechSci Research offers customizations according to a company's specific needs. The following customization options are available for the report:

## Company Information

Detailed analysis and profiling of additional market players (up to five).

## Contents

### **1. PRODUCT OVERVIEW**

- 1.1. Market Definition
- 1.2. Scope of the Market
  - 1.2.1. Markets Covered
  - 1.2.2. Years Considered for Study
  - 1.2.3. Key Market Segmentations

### **2. RESEARCH METHODOLOGY**

- 2.1. Objective of the Study
- 2.2. Baseline Methodology
- 2.3. Key Industry Partners
- 2.4. Major Association and Secondary Sources
- 2.5. Forecasting Methodology
- 2.6. Data Triangulation & Validation
- 2.7. Assumptions and Limitations

### **3. EXECUTIVE SUMMARY**

- 3.1. Overview of the Market
- 3.2. Overview of Key Market Segmentations
- 3.3. Overview of Key Market Players
- 3.4. Overview of Key Regions/Countries
- 3.5. Overview of Market Drivers, Challenges, and Trends

### **4. VOICE OF CUSTOMER**

### **5. GLOBAL AC POWER SOURCES MARKET OUTLOOK**

- 5.1. Market Size & Forecast
  - 5.1.1. By Value
- 5.2. Market Share & Forecast
  - 5.2.1. By Type (Single Phase, Three Phase, Pulse Width Modulation, Linear)
  - 5.2.2. By Application (Oil & Gas, Energy & Power, Automotive, Healthcare, Others)
  - 5.2.3. By Region (North America, Europe, South America, Middle East & Africa, Asia Pacific)

5.3. By Company (2024)

5.4. Market Map

## **6. NORTH AMERICA AC POWER SOURCES MARKET OUTLOOK**

6.1. Market Size & Forecast

6.1.1. By Value

6.2. Market Share & Forecast

6.2.1. By Type

6.2.2. By Application

6.2.3. By Country

6.3. North America: Country Analysis

6.3.1. United States AC Power Sources Market Outlook

6.3.1.1. Market Size & Forecast

6.3.1.1.1. By Value

6.3.1.2. Market Share & Forecast

6.3.1.2.1. By Type

6.3.1.2.2. By Application

6.3.2. Canada AC Power Sources Market Outlook

6.3.2.1. Market Size & Forecast

6.3.2.1.1. By Value

6.3.2.2. Market Share & Forecast

6.3.2.2.1. By Type

6.3.2.2.2. By Application

6.3.3. Mexico AC Power Sources Market Outlook

6.3.3.1. Market Size & Forecast

6.3.3.1.1. By Value

6.3.3.2. Market Share & Forecast

6.3.3.2.1. By Type

6.3.3.2.2. By Application

## **7. EUROPE AC POWER SOURCES MARKET OUTLOOK**

7.1. Market Size & Forecast

7.1.1. By Value

7.2. Market Share & Forecast

7.2.1. By Type

7.2.2. By Application

7.2.3. By Country

- 7.3. Europe: Country Analysis
  - 7.3.1. Germany AC Power Sources Market Outlook
    - 7.3.1.1. Market Size & Forecast
      - 7.3.1.1.1. By Value
    - 7.3.1.2. Market Share & Forecast
      - 7.3.1.2.1. By Type
      - 7.3.1.2.2. By Application
  - 7.3.2. France AC Power Sources Market Outlook
    - 7.3.2.1. Market Size & Forecast
      - 7.3.2.1.1. By Value
    - 7.3.2.2. Market Share & Forecast
      - 7.3.2.2.1. By Type
      - 7.3.2.2.2. By Application
  - 7.3.3. United Kingdom AC Power Sources Market Outlook
    - 7.3.3.1. Market Size & Forecast
      - 7.3.3.1.1. By Value
    - 7.3.3.2. Market Share & Forecast
      - 7.3.3.2.1. By Type
      - 7.3.3.2.2. By Application
  - 7.3.4. Italy AC Power Sources Market Outlook
    - 7.3.4.1. Market Size & Forecast
      - 7.3.4.1.1. By Value
    - 7.3.4.2. Market Share & Forecast
      - 7.3.4.2.1. By Type
      - 7.3.4.2.2. By Application
  - 7.3.5. Spain AC Power Sources Market Outlook
    - 7.3.5.1. Market Size & Forecast
      - 7.3.5.1.1. By Value
    - 7.3.5.2. Market Share & Forecast
      - 7.3.5.2.1. By Type
      - 7.3.5.2.2. By Application

## **8. ASIA PACIFIC AC POWER SOURCES MARKET OUTLOOK**

- 8.1. Market Size & Forecast
  - 8.1.1. By Value
- 8.2. Market Share & Forecast
  - 8.2.1. By Type
  - 8.2.2. By Application

### 8.2.3. By Country

## 8.3. Asia Pacific: Country Analysis

### 8.3.1. China AC Power Sources Market Outlook

#### 8.3.1.1. Market Size & Forecast

##### 8.3.1.1.1. By Value

#### 8.3.1.2. Market Share & Forecast

##### 8.3.1.2.1. By Type

##### 8.3.1.2.2. By Application

### 8.3.2. India AC Power Sources Market Outlook

#### 8.3.2.1. Market Size & Forecast

##### 8.3.2.1.1. By Value

#### 8.3.2.2. Market Share & Forecast

##### 8.3.2.2.1. By Type

##### 8.3.2.2.2. By Application

### 8.3.3. Japan AC Power Sources Market Outlook

#### 8.3.3.1. Market Size & Forecast

##### 8.3.3.1.1. By Value

#### 8.3.3.2. Market Share & Forecast

##### 8.3.3.2.1. By Type

##### 8.3.3.2.2. By Application

### 8.3.4. South Korea AC Power Sources Market Outlook

#### 8.3.4.1. Market Size & Forecast

##### 8.3.4.1.1. By Value

#### 8.3.4.2. Market Share & Forecast

##### 8.3.4.2.1. By Type

##### 8.3.4.2.2. By Application

### 8.3.5. Australia AC Power Sources Market Outlook

#### 8.3.5.1. Market Size & Forecast

##### 8.3.5.1.1. By Value

#### 8.3.5.2. Market Share & Forecast

##### 8.3.5.2.1. By Type

##### 8.3.5.2.2. By Application

## 9. MIDDLE EAST & AFRICA AC POWER SOURCES MARKET OUTLOOK

### 9.1. Market Size & Forecast

#### 9.1.1. By Value

### 9.2. Market Share & Forecast

#### 9.2.1. By Type

- 9.2.2. By Application
- 9.2.3. By Country
- 9.3. Middle East & Africa: Country Analysis
  - 9.3.1. Saudi Arabia AC Power Sources Market Outlook
    - 9.3.1.1. Market Size & Forecast
      - 9.3.1.1.1. By Value
    - 9.3.1.2. Market Share & Forecast
      - 9.3.1.2.1. By Type
      - 9.3.1.2.2. By Application
  - 9.3.2. UAE AC Power Sources Market Outlook
    - 9.3.2.1. Market Size & Forecast
      - 9.3.2.1.1. By Value
    - 9.3.2.2. Market Share & Forecast
      - 9.3.2.2.1. By Type
      - 9.3.2.2.2. By Application
  - 9.3.3. South Africa AC Power Sources Market Outlook
    - 9.3.3.1. Market Size & Forecast
      - 9.3.3.1.1. By Value
    - 9.3.3.2. Market Share & Forecast
      - 9.3.3.2.1. By Type
      - 9.3.3.2.2. By Application

## **10. SOUTH AMERICA AC POWER SOURCES MARKET OUTLOOK**

- 10.1. Market Size & Forecast
  - 10.1.1. By Value
- 10.2. Market Share & Forecast
  - 10.2.1. By Type
  - 10.2.2. By Application
  - 10.2.3. By Country
- 10.3. South America: Country Analysis
  - 10.3.1. Brazil AC Power Sources Market Outlook
    - 10.3.1.1. Market Size & Forecast
      - 10.3.1.1.1. By Value
    - 10.3.1.2. Market Share & Forecast
      - 10.3.1.2.1. By Type
      - 10.3.1.2.2. By Application
  - 10.3.2. Colombia AC Power Sources Market Outlook
    - 10.3.2.1. Market Size & Forecast

- 10.3.2.1.1. By Value
- 10.3.2.2. Market Share & Forecast
  - 10.3.2.2.1. By Type
  - 10.3.2.2.2. By Application
- 10.3.3. Argentina AC Power Sources Market Outlook
  - 10.3.3.1. Market Size & Forecast
    - 10.3.3.1.1. By Value
  - 10.3.3.2. Market Share & Forecast
    - 10.3.3.2.1. By Type
    - 10.3.3.2.2. By Application

## **11. MARKET DYNAMICS**

- 11.1. Drivers
- 11.2. Challenges

## **12. MARKET TRENDS AND DEVELOPMENTS**

- 12.1. Merger & Acquisition (If Any)
- 12.2. Product Launches (If Any)
- 12.3. Recent Developments

## **13. COMPANY PROFILES**

- 13.1. Keysight Technologies, Inc.
  - 13.1.1. Business Overview
  - 13.1.2. Key Revenue and Financials
  - 13.1.3. Recent Developments
  - 13.1.4. Key Personnel
  - 13.1.5. Key Product/Services Offered
- 13.2. AMETEK Programmable Power, Inc.
- 13.3. Chroma ATE Inc.
- 13.4. Pacific Power Source, Inc.
- 13.5. Matsusada Precision Inc.
- 13.6. B&K Precision Corporation
- 13.7. Good Will Instrument Co., Ltd.
- 13.8. Yokogawa Electric Corporation

## **14. STRATEGIC RECOMMENDATIONS**

## 15. ABOUT US & DISCLAIMER

## I would like to order

Product name: AC Power Sources Market – Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Type (Single Phase, Three Phase, Pulse Width Modulation, Linear), By Application (Oil & Gas, Energy & Power, Automotive, Healthcare, Others), By Region, By Competition, 2020-2030F

Product link: <https://marketpublishers.com/r/A425012AD513EN.html>

Price: US\$ 4,500.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/A425012AD513EN.html>