+357 96 030922
info@marketpublishers.com

Global Sustainable AI Data Center Infrastructure Market 2026 by Company, Regions, Type and Application, Forecast to 2032

https://marketpublishers.com/r/GCA881CE18AEEN.html
Date: July 2026
Pages: 181
Price: US$ 3,480.00 (Single User License)
ID: GCA881CE18AEEN

Abstracts

According to our (Global Info Research) latest study, the global Sustainable AI Data Center Infrastructure market size was valued at US$ 50007 million in 2025 and is forecast to a readjusted size of US$ 175454 million by 2032 with a CAGR of 17.8% during review period.

Sustainable AI Data Center Infrastructure refers to the set of engineered products, integrated systems, software platforms and lifecycle services that enable AI training, AI inference, high-performance computing and dense GPU clusters to operate with higher energy efficiency, lower water intensity, improved carbon transparency and greater facility resilience. The scope primarily covers high-density power distribution, UPS systems, switchgear, PDUs, busways, medium- and low-voltage electrical systems, HVDC architectures, coolant distribution units, cold plates, immersion tanks, rear-door heat exchangers, dry coolers, CRAH/CRAC systems, heat exchangers, dielectric fluids, prefabricated modular data centers, AI compute pods, DCIM, BMS, energy management software, carbon and water monitoring platforms, battery energy storage, fuel cells, standby generation and microgrid integration for AI data center environments. The defining technical features of this market are high rack power density, thermal stability, low PUE, low WUE, modular scalability, shortened deployment cycles, digital monitoring and lifecycle reliability.

Indicative pricing varies significantly by configuration: rack-level or row-level CDUs may range from tens of thousands to several hundred thousand US dollars, immersion cooling tanks and prefabricated power/cooling modules are typically project-priced from hundreds of thousands to several million US dollars, while large AI data center power and cooling packages can reach tens or hundreds of millions of US dollars depending

+357 96 030922
info@marketpublishers.com

on capacity and redundancy requirements.

Based on our research, Sustainable AI Data Center Infrastructure should be understood as a facility-level systems market rather than a generic green IT theme. The market is being shaped by the structural mismatch between rapidly rising AI compute density and legacy data center power and cooling architectures. Conventional data center efficiency programs were largely built around PUE improvement, redundancy, space utilisation and mechanical-electrical reliability. AI data centers add a more demanding layer: dense GPU clusters, sharply higher rack power, dynamic load profiles, liquid-cooling interfaces, grid-connection constraints, shortened deployment cycles and mounting transparency requirements around energy and water use. The IEA?s outlook for data center electricity demand and the European Union?s energy-performance reporting framework both point to a market in which efficiency, resilience and sustainability are becoming hard infrastructure requirements rather than discretionary ESG attributes.

From a supply-side perspective, the competitive landscape is becoming multi-layered. Global electrical and automation groups, critical digital infrastructure providers, precision cooling companies, specialist liquid-cooling vendors, Asian AI hardware supply chains and on-site power solution providers are converging around the same demand pool. Schneider Electric, Vertiv, Eaton, ABB, Legrand, Johnson Controls, Trane and Carrier bring scale, global service networks and integrated power-cooling capabilities. CoolIT, Submer, LiquidStack, Motivair, Envicool and other specialists bring deeper technology exposure to CDUs, cold plates, immersion systems and high-density liquid-cooling architectures. The recent strategic acquisitions and proposed acquisitions of liquid-cooling assets show that the market is moving from experimentation into industrial consolidation.

Regionally, North America remains the strongest demand and innovation centre for AI data center build-out, liquid-cooling start-ups and on-site power solutions. Europe retains advantages in electrification, precision cooling, enclosure systems, controls and regulatory-driven sustainability. China is building a rapidly expanding domestic ecosystem around intelligent computing centers, liquid cooling, modular facilities and digital energy infrastructure. Taiwan is particularly important in the AI hardware supply chain, where power modules, thermal components, rack-scale systems and ODM relationships connect facility requirements with server and accelerator design. Over the next cycle, competition will be determined less by single-product pricing and more by deployment speed, liquid-cooling reliability, rack-level standardisation, energy and water performance, global service capability and alignment with semiconductor and server ecosystems.

+357 96 030922
info@marketpublishers.com

This report is a detailed and comprehensive analysis for global Sustainable AI Data Center Infrastructure market. Both quantitative and qualitative analyses are presented by company, by region & country, by Infrastructure Function and by Application. As the market is constantly changing, this report explores the competition, supply and demand trends, as well as key factors that contribute to its changing demands across many markets. Company profiles and product examples of selected competitors, along with market share estimates of some of the selected leaders for the year 2025, are provided.

Key Features:

Global Sustainable AI Data Center Infrastructure market size and forecasts, in consumption value ($ Million), 2021-2032

Global Sustainable AI Data Center Infrastructure market size and forecasts by region and country, in consumption value ($ Million), 2021-2032

Global Sustainable AI Data Center Infrastructure market size and forecasts, by Infrastructure Function and by Application, in consumption value ($ Million), 2021-2032

Global Sustainable AI Data Center Infrastructure market shares of main players, in revenue ($ Million), 2021-2026

The Primary Objectives in This Report Are:

To determine the size of the total market opportunity of global and key countries

To assess the growth potential for Sustainable AI Data Center Infrastructure

To forecast future growth in each product and end-use market

To assess competitive factors affecting the marketplace

This report profiles key players in the global Sustainable AI Data Center Infrastructure market based on the following parameters - company overview, revenue, gross margin, product portfolio, geographical presence, and key developments. Key companies covered as a part of this study include Schneider Electric SE, Vertiv Holdings Co, Eaton Corporation plc, ABB Ltd, Delta Electronics, Inc., Huawei Digital Power, Johnson

+357 96 030922
info@marketpublishers.com

Controls, Trane Technologies, Legrand SA, Rittal, etc.

This report also provides key insights about market drivers, restraints, opportunities, new product launches or approvals.

Market segmentation

Sustainable AI Data Center Infrastructure market is split by Infrastructure Function and by Application. For the period 2021-2032, the growth among segments provides accurate calculations and forecasts for Consumption Value by Infrastructure Function and by Application. This analysis can help you expand your business by targeting qualified niche markets.

Market segment by Infrastructure Function

- Thermal Management Infrastructure
- Power and Electrical Infrastructure
- Modular Facility Infrastructure
- Sustainability and Operations Software
- On-site Energy and Resilience Systems

Market segment by Cooling Technology

- Advanced Air and Hybrid Cooling
- Direct-to-Chip Liquid Cooling
- Immersion Cooling
- Two-phase / Waterless Liquid Cooling
- Other

+357 96 030922
info@marketpublishers.com

Market segment by Power Architecture

- Conventional AC UPS and Distribution
- High-voltage DC / Advanced DC Distribution
- Medium-voltage and Grid-interface Systems
- On-site Power and Microgrid Systems
- Other

Market segment by Sustainability Value Lever

- Energy Efficiency Improvement
- Water Efficiency and Waterless Operation
- Carbon Reduction and Clean Power Integration
- Deployment Efficiency and Resource Optimization
- Other

Market segment by Application

- Hyperscale AI Training Facilities
- AI Inference and Cloud Service Data Centers
- Colocation AI Hosting Facilities
- Enterprise and Sovereign AI Facilities
- Edge and Specialized AI Facilities
- Other

+357 96 030922
info@marketpublishers.com

Market segment by players, this report covers

Schneider Electric SE

Vertiv Holdings Co

Eaton Corporation plc

ABB Ltd

Delta Electronics, Inc.

Huawei Digital Power

Johnson Controls

Trane Technologies

Legrand SA

Rittal

nVent Electric

STULZ GmbH

Munters Group AB

Daikin Industries

Carrier Global

Envicool

Shenling

CoolIT Systems

+357 96 030922
info@marketpublishers.com

Motivair

Submer

LiquidStack

Asetek

Nidec Corporation

LG Electronics

Mitsubishi Electric

Hon Hai Precision Industry

Lenovo Group

HPE

Supermicro

Quanta

Wiwynn

Kaori

Alfa Laval

Kelvion

Bloom Energy

Cummins

Caterpillar

+357 96 030922
info@marketpublishers.com

Kstar

Kehua Data

Goaland

Market segment by regions, regional analysis covers

North America (United States, Canada and Mexico)

Europe (Germany, France, UK, Russia, Italy and Rest of Europe)

Asia-Pacific (China, Japan, South Korea, India, Southeast Asia and Rest of Asia-Pacific)

South America (Brazil, Rest of South America)

Middle East & Africa (Turkey, Saudi Arabia, UAE, Rest of Middle East & Africa)

The content of the study subjects, includes a total of 13 chapters:

Chapter 1, to describe Sustainable AI Data Center Infrastructure product scope, market overview, market estimation caveats and base year.

Chapter 2, to profile the top players of Sustainable AI Data Center Infrastructure, with revenue, gross margin, and global market share of Sustainable AI Data Center Infrastructure from 2021 to 2026.

Chapter 3, the Sustainable AI Data Center Infrastructure competitive situation, revenue, and global market share of top players are analyzed emphatically by landscape contrast.

Chapter 4 and 5, to segment the market size by Infrastructure Function and by Application, with consumption value and growth rate by Infrastructure Function, by Application, from 2021 to 2032.

Chapter 6, 7, 8, 9, and 10, to break the market size data at the country level, with revenue and market share for key countries in the world, from 2021 to

+357 96 030922
info@marketpublishers.com

2026.and Sustainable AI Data Center Infrastructure market forecast, by regions, by Infrastructure Function and by Application, with consumption value, from 2027 to 2032.

Chapter 11, market dynamics, drivers, restraints, trends, Porters Five Forces analysis.

Chapter 12, the key raw materials and key suppliers, and industry chain of Sustainable AI Data Center Infrastructure.

Chapter 13, to describe Sustainable AI Data Center Infrastructure research findings and conclusion.

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

2 COMPANY PROFILES

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

List Of Tables

LIST OF TABLES

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

List Of Figures

LIST OF FIGURES

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: Global Sustainable AI Data Center Infrastructure Market 2026 by Company, Regions, Type and Application, Forecast to 2032

Product link: https://marketpublishers.com/r/GCA881CE18AEEN.html

Price: US$ 3,480.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:
info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/GCA881CE18AEEN.html