+357 96 030922
info@marketpublishers.com

Global Fully Liquid-cooled Charging Pile Market 2026 by Manufacturers, Regions, Type and Application, Forecast to 2032

https://marketpublishers.com/r/GC75E4384B02EN.html
Date: May 2026
Pages: 131
Price: US$ 3,480.00 (Single User License)
ID: GC75E4384B02EN

Abstracts

According to our (Global Info Research) latest study, the global Fully Liquid-cooled Charging Pile market size was valued at US$ 757 million in 2025 and is forecast to a readjusted size of US$ 4478 million by 2032 with a CAGR of 29.0% during review period.

A fully liquid?cooled charging pile is a DC fast charging unit for electric vehicles that employs a comprehensive liquid cooling system to manage the temperature of internal power electronic components, interconnects, and the charging gun, ensuring thermal stability under high current and high power operating conditions to improve charging efficiency and safety. This product addresses the limitations of traditional air cooling or partial liquid cooling approaches, which can suffer from heat accumulation, power reduction, overheating protection triggers, and shortened equipment life during sustained high?power output, by providing a more reliable and consistent high?performance charging experience. The evolution of fully liquid?cooled charging piles began with the surge in demand for ultra?fast charging and the widespread adoption of long?range EVs; as high?performance semiconductor devices, power electronic modules, advanced heat exchange materials, and liquid cooling loop technologies have matured, the full liquid cooling architecture has become a key technical pathway in high?power charging. Upstream raw materials and components include high?thermal?conductivity coolant fluids, liquid cooling piping and fittings, power semiconductors (such as SiC MOSFETs and IGBTs), high?conductivity interconnects, precision sensors, and control modules, supported by liquid cooling system manufacturers, power electronics suppliers, thermal management material providers, and intelligent control solution developers.In 2025, the global production capacity of fully liquid-cooled charging piles reached 30,000 units, with sales totaling 21,453 units. The

+357 96 030922
info@marketpublishers.com

average unit price was USD 34,285, and the gross profit margin of enterprises ranged between 30% and 40%.

The market for fully liquid?cooled charging piles is currently evolving rapidly as the broader EV industry shifts toward higher?power fast charging. With growing expectations from users for faster, more stable charging?especially in applications such as long?distance travel, fleet operations, and high?utilization environments?conventional cooling approaches have shown limitations in maintaining sustained high?power output. This has driven fully liquid?cooled solutions to gain prominence as a key technical pathway in high?power charging infrastructure. Across the ecosystem, stakeholders are deepening collaboration around thermal management systems, power electronics integration, intelligent control, and safety strategies, gradually forming a more complete technology ecosystem. At the same time, challenges such as incomplete harmonization of standards, limited interoperability across suppliers, and adaptation to diverse deployment scenarios remain, requiring coordinated efforts to improve market adoption and deployment efficiency.

Looking ahead, fully liquid?cooled charging piles are expected to deepen their application footprint as technology maturity and supporting infrastructure continue to advance. Progress in high?performance thermal management materials, next?generation power semiconductor devices, modular system design, and intelligent energy management will further enhance reliability and efficiency, enabling broader deployment at strategic nodes such as highway corridors and logistics hubs. In parallel, trends in renewable energy integration, grid dispatch coordination, energy storage, and vehicle?to?grid interaction will provide more flexible and greener energy support for high?power charging. As international and regional charging standards converge and mature solutions see wider implementation, liquid?cooled technology is positioned to drive the high?power charging ecosystem toward greater efficiency and intelligence.

The forces propelling the development of fully liquid?cooled charging piles include policy support, user demand for superior charging experiences, accumulated industry technology, and innovation in business models. Policy frameworks that guide infrastructure development and raise energy efficiency standards give clear direction for investment and innovation; user expectations for fast, stable, and reliable charging also motivate continuous optimization of technical solutions. Breakthroughs in core components such as thermal management, power electronics, and smart control enhance product competitiveness, and closer collaboration between infrastructure operators and vehicle manufacturers accelerates real?world deployment. Yet challenges remain in cost control, ensuring high?power operational safety,

+357 96 030922
info@marketpublishers.com

interoperability across standards, and grid capacity to support localized high?power demand. Addressing these through multi?party collaboration, sustained technological progress, and targeted policy support will be key to removing barriers and fostering sustainable long?term growth for fully liquid?cooled charging technology.

This report is a detailed and comprehensive analysis for global Fully Liquid-cooled Charging Pile market. Both quantitative and qualitative analyses are presented by manufacturers, by region & country, by Type 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 Fully Liquid-cooled Charging Pile market size and forecasts, in consumption value ($ Million), sales quantity (Units), and average selling prices (US$/Unit), 2021-2032

Global Fully Liquid-cooled Charging Pile market size and forecasts by region and country, in consumption value ($ Million), sales quantity (Units), and average selling prices (US$/Unit), 2021-2032

Global Fully Liquid-cooled Charging Pile market size and forecasts, by Type and by Application, in consumption value ($ Million), sales quantity (Units), and average selling prices (US$/Unit), 2021-2032

Global Fully Liquid-cooled Charging Pile market shares of main players, shipments in revenue ($ Million), sales quantity (Units), and ASP (US$/Unit), 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 Fully Liquid-cooled Charging Pile

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

To assess competitive factors affecting the marketplace

+357 96 030922
info@marketpublishers.com

This report profiles key players in the global Fully Liquid-cooled Charging Pile market based on the following parameters - company overview, sales quantity, revenue, price, gross margin, product portfolio, geographical presence, and key developments. Key companies covered as a part of this study include BYD, Huawei Digital Power, Kempower, ABB, Siemens, KSTAR, TELD, Sungrow, Sinexcel, EN Plus, etc.

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

Market Segmentation

Fully Liquid-cooled Charging Pile market is split by Type and by Application. For the period 2021-2032, the growth among segments provides accurate calculations and forecasts for consumption value by Type, and by Application in terms of volume and value. This analysis can help you expand your business by targeting qualified niche markets.

Market segment by Type

High Power (150?350 kW)

Ultra-High Power (350?500 kW)

Megawatt Level (500?1000 kW)

Multi-Megawatt Level (>1000 kW)

Market segment by Deployment Mode

Standalone Charging Station

Charging Hub Charging Station

Energy Storage Integrated Charging Station

+357 96 030922
info@marketpublishers.com

Market segment by Application

- Highway Service Station
- Logistics Hub
- Public Transit Hub
- Commercial Parking Area

Major players covered

- BYD
- Huawei Digital Power
- Kempower
- ABB
- Siemens
- KSTAR
- TELD
- Sungrow
- Sinexcel
- EN Plus
- StarCharge
- Tritium
- Alpitronic

+357 96 030922
info@marketpublishers.com

MIDA EV Power

Teison

MaxPower

Market segment by region, regional analysis covers

North America (United States, Canada, and Mexico)

Europe (Germany, France, United Kingdom, Russia, Italy, and Rest of Europe)

Asia-Pacific (China, Japan, Korea, India, Southeast Asia, and Australia)

South America (Brazil, Argentina, Colombia, and Rest of South America)

Middle East & Africa (Saudi Arabia, UAE, Egypt, South Africa, and Rest of Middle East & Africa)

The content of the study subjects, includes a total of 15 chapters:

Chapter 1, to describe Fully Liquid-cooled Charging Pile product scope, market overview, market estimation caveats and base year.

Chapter 2, to profile the top manufacturers of Fully Liquid-cooled Charging Pile, with price, sales quantity, revenue, and global market share of Fully Liquid-cooled Charging Pile from 2021 to 2026.

Chapter 3, the Fully Liquid-cooled Charging Pile competitive situation, sales quantity, revenue, and global market share of top manufacturers are analyzed emphatically by landscape contrast.

Chapter 4, the Fully Liquid-cooled Charging Pile breakdown data are shown at the regional level, to show the sales quantity, consumption value, and growth by regions, from 2021 to 2032.

Chapter 5 and 6, to segment the sales by Type and by Application, with sales market

+357 96 030922
info@marketpublishers.com

share and growth rate by Type, by Application, from 2021 to 2032.

Chapter 7, 8, 9, 10 and 11, to break the sales data at the country level, with sales quantity, consumption value, and market share for key countries in the world, from 2021 to 2026.and Fully Liquid-cooled Charging Pile market forecast, by regions, by Type, and by Application, with sales and revenue, from 2027 to 2032.

Chapter 12, market dynamics, drivers, restraints, trends, and Porters Five Forces analysis.

Chapter 13, the key raw materials and key suppliers, and industry chain of Fully Liquid-cooled Charging Pile.

Chapter 14 and 15, to describe Fully Liquid-cooled Charging Pile sales channel, distributors, customers, research findings and conclusion.

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

3 COMPETITIVE ENVIRONMENT: FULLY LIQUID-COOLED CHARGING PILE BY MANUFACTURER

+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

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 Fully Liquid-cooled Charging Pile Market 2026 by Manufacturers, Regions, Type and Application, Forecast to 2032

Product link: https://marketpublishers.com/r/GC75E4384B02EN.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/GC75E4384B02EN.html