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Series

## Start the Era 1.0 of Electrolysis Energy Efficiency

# Alkaline Electrolyzer

# Energy consumption down to 4.0 kWh/Nm<sup>3</sup>

#### 2021

- + In March, LONGi Hydrogen was registered
  - In April, Hydrogen production equipment plant locates in Wuxi, Jiangsu
  - In October, the first electrolyzer rolled off the production line
  - In December, production capacity reached 500MW

#### 2022

- In May, won the bid for the world's largest green hydrogen project
- In November, participated in the compilation of "Guidelines for Performance Evaluation of 'Top Runner Program' of T/CAB 0166-2022 Water Electrolysis system"
- In December, production capacity reached 1.5GW, ranking No.1 worldwide

### 2025

+ 5 to 10GW Scheduled capacity

#### 2018

- Proposed "Solar for Solar" development model
- Initiated strategic research on the hydrogen industry chain

#### LONGi Hydrogen is committed to becoming

the world's leading large-scale electrolyzer and green hydrogen production solution provider.

LONGi Brand Value

🕸 Leading Technology 🏻 🎍 Lea

In 2 years, 14 consecutive times broke the world record for photovoltaic cell conversion efficiency

Reliable Product

Full life cycle management Customer-centered

# Leading R&D

2.3 billion R&D investment in 10 years Top1 in the photovoltaic industry

Reliable finance

No.1 in BNEF Financial Health Index

The only AAA rating for "Bankability" of modules by PV Tech

Sustainable Development

Leading Value

2021 Intersolar Award

manufacturer winner

The only module

RE100, EP100, EV100 SBTI, Green supply chain system management LONGi zero-carbon factory construction 2.0

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# LONGI ALK I

Hi1 Series Electrolyzer Data	Hi1 1000	Hi1 Plus 1000
Production Flow rate (Nm <sup>3</sup> /h)	1	000
Operating Pressure (MPa)	1.6	
DC power Consumption (kWh/Nm <sup>3</sup> )	≤4.3	≤4.1
Load Range	30%-110%	
Hydrogen Purity (after purification)	99.9	.999%
O2 Content in H2 (ppmv)		
Operating Temperature (°C)	90	
Ambient Temperature (°C)	5	5-40
Electrolyte	30%	% КОН

#### **Hydrogen Production System**

The industry's first 4000Nm<sup>3</sup>/h bundled system (4 electrolyzers with 1 gas-liquid separation skid), saving 20% footprint. Optional: Purification, Rectifier, other auxiliary systems.



Improved DC power performance through overpotential and ohmic loss reduction by internal structure and material optimization.

World leading automatic production line, ensure consistent and excellent performance.

Automatic N<sub>2</sub> purging function, multiple protection interlocks for safe shutdown, redundant PLC design, independent safety instrumented system.

Real-time process and utility parameters monitoring, ensure operation safety and data traceability.



System

#### Reliably and Steadily Invigorate by Science & Technology

Product



ESA community responsibility System certification WCA ISO9001 / 14001 / 45001

ASME certified factory Self-built reliability lab



PLC control + Independent SIS Comply with CE-PED / ASME / IEC / AS / UL

www.longi.com/en/

Mature ALK technology 99.999% high purity hydrogen production 70+ patents to back the performance

+ Fully automated production / welding line guarantee the consistency of system performance

100% remote controllable

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Online monitoring platform (available to client upon request)

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