

# WELCOME TO THE INNER CIRCLE OF POWER.

Electrolysers by L&T

Think Green. Drive Green.

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## About L&T

Larsen & Toubro, India's leading technology-led engineering solutions and services company, has played a vital role in the country's national movements for over 80 years, including its green energy goals. Through ventures across core industries, L&T meets critical economic requirements while enhancing quality of life and creating long-term stakeholder value.

As builders to the nation, L&T stands alongside its clients, driving progress and laying foundations for a happier, brighter tomorrow.



## About L&T Electrolysers

L&T Electrolysers Ltd pioneers innovative, sustainable solutions to meet future energy needs and create a greener world. The company is committed to Green Hydrogen, a promising alternative fuel that reduces greenhouse gas emissions and enhances energy security.

A state-of-the-art Electrolyser Manufacturing Facility in Hazira, Gujarat, will produce Alkaline electrolysers based on a license from McPhy Energy, a leading electrolyser technology company.

This makes L&T Electrolysers Ltd the first Indian manufacturer with alkaline technology that is capable of meeting the demands of the domestic as well as international markets for Green Hydrogen generation.



## The McLyzer

McLyzer, manufactured by L&T under license from McPhy, is a state-of-theart pressurized alkaline technology based electrolyser powered by European technology. It is designed to meet the increasing demand for green hydrogen and is equipped with innovative features to make the process efficient, flexible.

## **Product Excellence**



The McLyzer stands out with its unique stack design, providing exceptional flexibility and thermal stability. Its ability to operate in hot standby mode for extended durations and rapidly reach full load within 30 seconds enables seamless adaptation to intermittent renewable energy supply. The impressive H2 purity level of 99.999%, achieved through high-pressure discharge of H2 & O2, eliminates the need for a separate compressor. This cutting-edge technology positions McLyzer as the ultimate solution for efficient and sustainable green hydrogen production.



# Design & Safety

McLyzer is designed to comply with international codes and standards for ISO/IEC/NFPA/ASME/PED, making it a safe and reliable solution for hydrogen production. It has a compact footprint and is a modular solution that can be configured as 0.5/1 MW stacks, 2/4/8 MW modules, or Multi-MW clusters with a footprint of less than 45 SQM/MW.

# **Technical Specifications**

McLyzer Fact Sheet

Power Class	1 MW	2 MW	4 MW	8 MW
System Design Life (Mechanical)	+ 20 Years			
H <sub>2</sub> Flow Rate	200 Nm³ /h	400 Nm³ /h	800 Nm³ /h	1600 Nm3/hr.
H <sub>2</sub> Purity	> 99.999% after HPS			
O <sub>2</sub> Purity	99% at Electrolyser Outlet			
H <sub>2</sub> Delivery Pressure	~ 28 bar (g)			
O <sub>2</sub> Delivery Pressure	~ 28 bar (g)			
Stack DC Consumption	< 4.66 kWh/Nm³			
Operation Range	20 – 100%			
Reaction Time	< 30s from hot stand-by to 100 %			
Ramp-Up/Down	>5%/s   20 %/s			



### **Proven Technology**

McPhy has a strong track record as an electrolyser supplier, consistently delivering significant MW scale Electrolysers. Many of these units are currently in different stages of operation and commissioning, with notable installations such as the 4 MW system at Sinopec in China and the 6 MW unit for Audi e-Gas in Germany, among others. Since 2013, McPhy is supplying MW scale Electrolysers. These electrolysers are employed across various applications in different industries, primarily for on-site, on-demand industrial hydrogen production to meet customer needs encompassing Steel, mobility, power generation, P-to-X, ammonia, methanol, etc.

L&T, a prominent technology-driven engineering and construction company in India, is deeply committed to sustainability. In alignment with India's "Make in India" to "Made in India" initiative, we are actively involved in cocreating a value chain in Green Hydrogen. Our primary focus lies in manufacturing advanced Pressurized Alkaline technology-based Electrolysers, drawing inspiration from McPhy's well-established success in mature global markets. The Made in India Electrolyser we offer is renowned for its high reliability and efficiency in green hydrogen production, making it an ideal choice for a wide range of industries and a promising investment opportunity for businesses of all sizes.



### L&T Electrolyser Manufacturing Facility - Key Highlights

**Manufacturing Location** Hazira, Gujarat

Capacity GW Scale

Product Lines Stack & Process Unit

**Proximal Advantage** Connected to Industrial Corridor and port

### **Expertise Advantage**

L&T's profound commitment to sustainability and reliability shines through the McLyzer – a testament to their expertise. L&T offers an extensive supply chain support, high precision craftsmanship, and engineering excellence, all encapsulated in the McLyzer. The company goes the extra mile by providing Indigenous service solutions, ensuring long service life for these electrolysers. This unwavering long-term service commitment makes L&T an invaluable and dependable partner for Green Hydrogen Production, contributing to the growth of a greener economy.

#### L&T Electrolysers Limited

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Technology

Pressurized Alkaline Electrolysis