



PRODUCT DESCRIPTION:

H₂-Industries' eSTORE product line is designed to convert large amounts of regeneratively generated energy from wind and solar power plants into hydrogen via electrolysis and store it permanently in a Liquid Organic Hydrogen Carrier (LOHC). Within the eSTORE Unit the produced hydrogen is bound by means of catalysts at a pressure of about 30-50 bar is chemically bonded to the carrier medium. The enriched LOHC (LOHC+) resulting from this is

routed into associated eSTORAGE tanks. The waste heat from this exothermic process is removed from the system and can be used for subsequent processes or other applications. The size of the plant depends on the specific application and local conditions. The modular designed system is installed into 20 ft. Containers and is therefore still mobile in the future.

GENERAL INFORMATION:

Dimensions in mm (LxWxH)	6,058 x 2,438 x 2,591 mm
Weight	ca. 25,000 kg

INPUT PARAMETERS:

Electrical Energy	ca. 1 MW (1.000 kW) max.
Water	ca. 1,000 l / h max.
LOHC – (unloaded LOHC)	ca. 258 NI / h (266 l / h at T _{in} = 60°C)

OUTPUT PARAMETERS:

LOHC + (enriched with H ₂)	ca. 315 NI / h (354 l / h at T _{out} = 180°C)
Equals H ₂	ca. 18 kg / h
	ca. 200 Nm ³ / h
Power (P _{el.} & P _{th.})	ca. 600 kW
Waste Heat Power (P _{thOut})	ca. 180 kW

*NI refers to Standard Reference Atmosphere acc. DIN 1945-1 (p = 1,0 bar and t = 20°C)