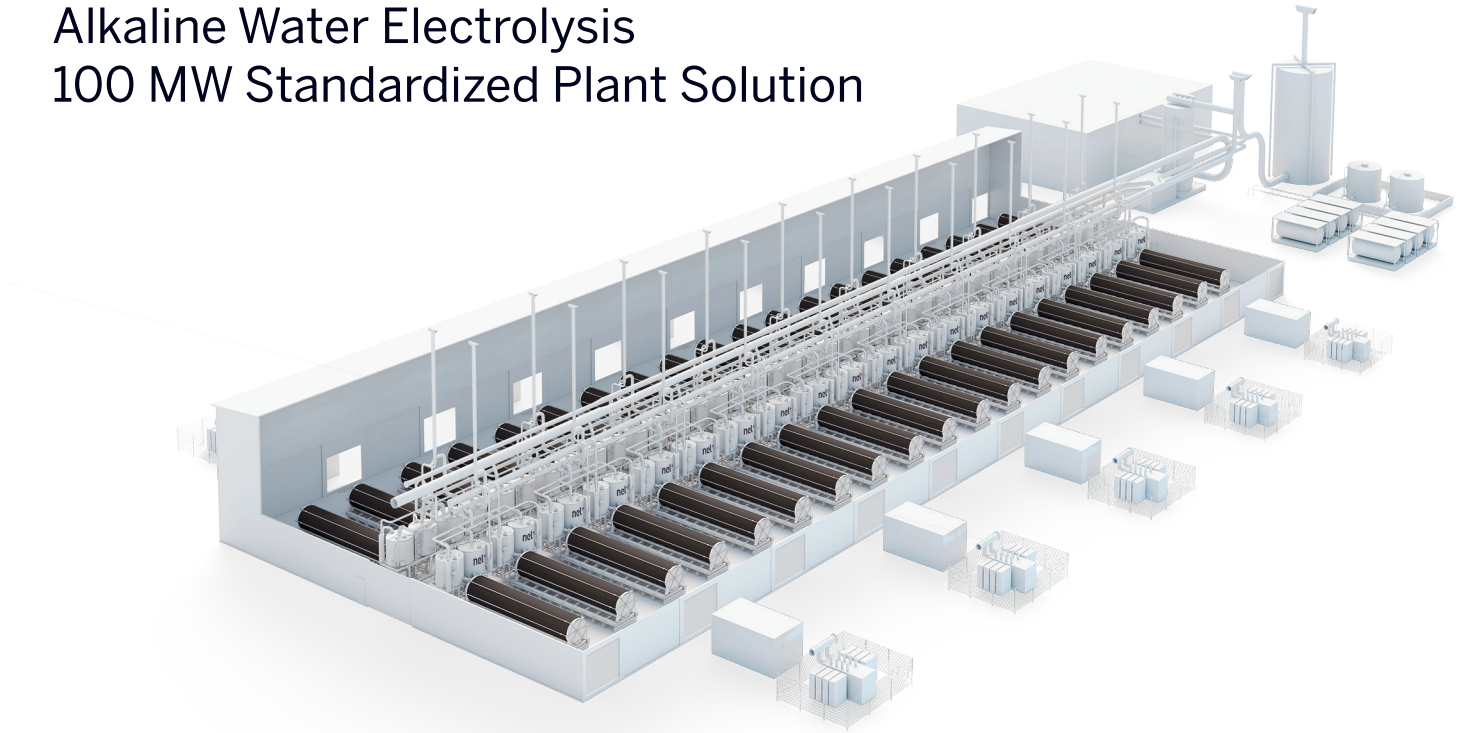
# AWE 100

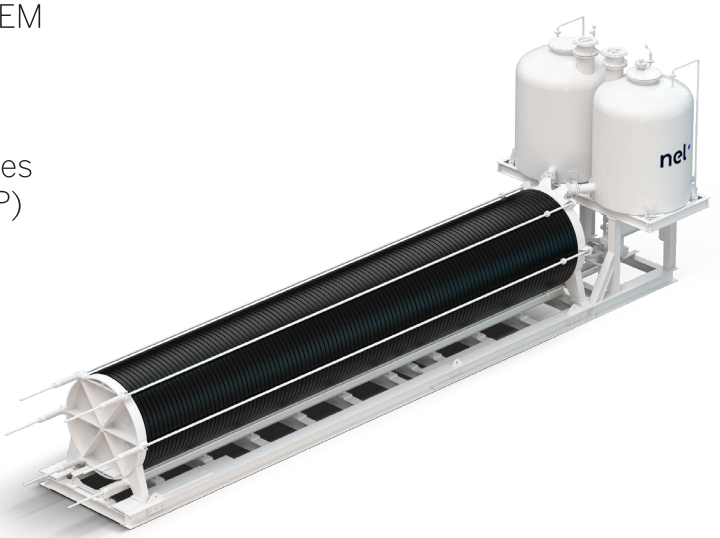
## Alkaline Water Electrolysis
## 100 MW Standardized Plant Solution



*100 MW Alkaline electrolysis plant featuring forty A485 electrolyser cell stacks.*

The AWE 100 is an atmospheric alkaline water electrolysis plant that consolidates forty of Nel's industry leading A485 cell stacks into a standardized 100 MW plant design.

- Proven technology and field reliability
- Highest efficiency cell stacks on the market
- Largest installation base of any electrolyser OEM
- Large operational range (15 to 100% load)
- On site repairable cell stacks
- Long-term service agreements available with extend warranties and performance guarantees
- Comprehensive process design package (PDP) available for reduced FEED cost and schedule



*A485 electrolyser stack and electrolyte system module.*

| MODEL | | AWE 100 |
|---|---|---|
| Class | | 100 MW |
| Electrolyte | | 25% KOH solution |
| **HYDROGEN PRODUCTION** | | |
| Nominal Production Rate<br>$Nm^3/h$ ($m^3/h$ @ 0°C, 1 bar)<br>kg/24 h | | 19,400 $Nm^3/h$<br>41,840 kg/24 h |
| Delivery Pressure[1] | | 0.03 barg (0.435 psig) |
| Nominal Power Consumption at Stack per Unit of $H_2$ Gas Produced at 100% Capacity[2] | | 4.5 kWh/$Nm^3$<br>49 kWh/kg |
| Nominal Power Consumption by Plant (depends on final configuration) per Unit of $H_2$ Gas Produced at 100% Capacity[2] | | 4.7 kWh/$Nm^3$<br>51.1 kWh/kg |
| Purity (with optional purification) | | 99.99% |
| Turndown Range | | 15 to 100% |
| **SITE AND UTILITIES** | | |
| Standard Siting Location | | Indoor, pad or concrete pier mounted |
| Ambient Temperature (inside building) | | 5 to 40°C (41 to 104°F) |
| Altitude Range[3] | | Sea level to 1,000 m (3,281 ft) |
| Electrical Requirements | DC (Cell Stack)[2] | 355 to 414 VDC; 775 to 5,150 A<br>Detailed DC power specifications to be provided separately |
| | Electrolyte System | 400 VAC, three phase plus neutral and protective earth, 50 Hz<br>or 480 VAC, three phase and protective earth, 60 Hz |
| Plant Dimensions W x D[4] | | 150 m x 80 m (490 ft x 260 ft) |

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Specifications are subject to change. Please contact Nel Hydrogen for solutions to best fit your needs.

1. Upstream of the compressor.
2. Beginning of life and dependent on configuration and operating conditions.
3. Consult Nel Hydrogen Applications Engineering Department for installations above 1,000 m (3,281 ft).
4. Site conditions may cause the design to vary including Compressor and Dryer/Deoxidizer

www.nelhydrogen.com | +1.203.949.8697 | info@nelhydrogen.com

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