# 25kW AEM Stack

The HYDGEN 25 kW AEM electrolyzer is designed for small-scale industrial applications requiring reliable, on-site hydrogen production of approximately 10 kg/day. It strikes a balance between capacity and footprint, making it an excellent choice for research projects and small-scale manufacturing.


## Input

| | |
|---|---|
| **Specification** | AEM 25 |
| **Stack Power Consumption** | 25kW |
| **DC Power Consumption** | 4.8 ( rated Power ) kWh/Nm3 H2 |
| **Feed Water Quality** | ≤10 μS/cm (ISO 3696:1987 Grade1) |
| **Water Flow Rate** | 0.89 $m^3/h$ |
| **Current Density** | 1 $A/cm^2$ |
| **Cells** | 32 Pcs |
| **Rated Current** | 400 A |
| **Rated Voltage** | 64 V |
| **Rated Temperature** | 50±5 ℃ |
| **Ambient Temperature** | 10-40 ℃ |

## Output

| | |
|---|---|
| Volume | 5 Nm3/h |
| Mass | ~ 11.4 kg H2/day |
| H2 Output Pressure | ~5 Barg |
| O2 Side Pressure | ~1 Barg |
| O2 in H2 | ≤0.1 ( dry basis ) % |
| H2 in O2 | ≤1 ( dry basis ) % |
| Purity | 99.97% |
| Ambient Temperature | 10-40℃ |

## Performance Parameters

| | |
|---|---|
| DC efficiency | 75-82 %HHV |
| Start Up Time | 10s/8min Warm/Cold |
| Response time | 30s |
| Water Consumption | ~4.29 L/h |
| Power Range | 25~125 % |
| Design Life | 40000 hours |

## Mechanical Parameters

| | |
|---|---|
| Size (W×L×H) | 420*420*250 mm |
| Weight | ~300 Kg |