



## H<sub>2</sub> ELECTROLYSERS – Serie K (40/160)

### General Specifications

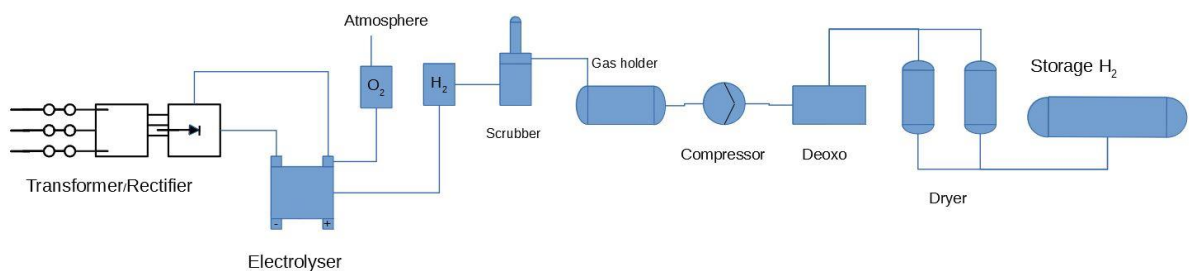
KERN S&D, S.L. designs and supplies hydrogen electrolyzers.

Types of electrolyzers:

- Atmospheric alkaline electrolyzer
- Bipolar electrodes separated by diaphragm (without asbestos). H<sub>2</sub> is generated at the cathode and O<sub>2</sub> at the anode

The set includes:

1. Transformer/rectifier unit
2. Electrolyzer/s
3. Electrolyte unit, consisting of two gas separators and the electrolyte recirculation system. The electrolyte is collected in the separators, it is cooled and recirculated to the electrolyzer
4. Scrubber unit to remove residual traces of electrolyte and cool H<sub>2</sub>
5. Gasometer/Intermediate tank
6. Compressor unit
7. Deoxo unit, for hydrogen purification (removal of O<sub>2</sub>)
8. Drying unit for water removal
9. Final H<sub>2</sub> storage depending on the different uses and applications



Type scheme

### Electrolyzers

- Net production capacity: 40 – 160 Nm<sup>3</sup>/h
- Production capacity range: 50% al 100%
- H<sub>2</sub>O in H<sub>2</sub>: < 2 ppmv
- Gas temperature: 35°C
- Operating temperature: 80°C
- Energy consumption: 4,3 kWh/Nm<sup>3</sup>
- Water consumption: 0,8 litros/Nm<sup>3</sup>
- Supply pressure: 10 barg - 250 barg
- Electrolyzer power: 170 kW
- Purity with DEOXO: < 1 ppmv of oxygen
- Electrolyte: 25% aqueous KOH solution
- Solutions:
  - Systems adapted to any demand
  - Turnkey
  - Scalable
  - Containerized 20 – 40 ft.