

PowerCell S3

Powerful, Efficient and Durable

- Scalable range up to 125 kW
- Extraordinary energy extraction
- Long durability
- Compact and light weight
- PEM technology, fast start up and shut down

Our S3 offers powerful, efficient and durable solutions. The platform is scalable and is designed to be used in a number of applications in mobile and stationary industries, such as maritime application and industrial power generation.

The core of all our products are our fuel cell stacks. They are designed to work on reformat gas as well as pure hydrogen.

Metal bipolar plates and state-of-the-art membrane electrode assembly give a robust, low cost and high-performance design. Many features are patented.

The fuel cells are based on PEM technology (polymer electrolyte membrane). This is the most commonly used technology today, owing to its reliable and dynamic characteristics that allows for full power output within seconds. Another feature is the capability for extensive starts and stops.



Compact and light

Ultra-thin cells and smart active cell usage combined with a large active area enables high power density.

Power output

Our S3 operates pressurised creating an even distribution resulting in a worldleading power density.

Long-life MEA

Our membrane electrode assembly (MEA) is selected to deliver up to 20,000 hours lifetime.

Physical Data:

Specification for standard stack sizes

| | | | | | |
|-----------------|-------------|-------------|-------------|-------------|-------------|
| Max power (kW) | 49 | 63 | 81 | 98 | 125 |
| Cell Count | 167 | 215 | 275 | 335 | 455 |
| Dimensions (mm) | 420x271x156 | 420x321x156 | 420x383x156 | 420x444x156 | 420x568x156 |
| Weight (kg) | 21 | 25 | 29 | 34 | 43 |

*PowerCells S3 stack power and size can be modified for specific needs

All models

| | |
|------------------------------|--|
| Max continuous temperature | 85 °C |
| Humidity | Non-condensing at inlet |
| Fuel Pressure | < 2.2 Bar (g) |
| Coolant pressure | < 2.5 Bar (g) |
| Air Pressure | < 2.3 Bar (g) |
| Ambient temperature | -30 - 70 °C |
| Fuel composition (dry basis) | 70-100 % H ₂ (0-30% inert dilutants, i.e. He + N ₂ + Ar) |

Unit Cell Data:

