



Arco Technologies Inc

Arco Technologies

Advanced Energy Systems

Powering the future

DATA SHEET

ALFA

Fuel cell modules for transport and naval



MODULES

A wide range of configurations,
from 20 kW to Megawatts



DIRECTLINK™



HYDROREC™



Typical application areas

The FS-360 fuel cell stack is integrated into modular systems to power a diverse range of vehicles, including city buses, trucks, yachts, and light rail vehicles. These configurations span from 20 kW to Megawatt-scale, offering versatile solutions to meet the needs of a broad portfolio of applications

Alfa advantages

- **Reliable Durability:** 20+ years of development for increased reliability, extending lifetime to 25,000 hours.
- **Dynamic Performance:** Offers fast response akin to large diesel engines.
- **Modular Efficiency:** Scalable for megawatt-level configurations.
- **Low Maintenance:** Minimal moving parts for easy, long-lasting maintenance.
- **Safety Assurance:** Compliant with stringent safety standards.
- **Cost-Effective:** Low total cost of ownership through optimization.
- **Space Efficiency:** Modular design maximizes vessel space.
- **Remote Monitoring:** Equipped with remote diagnostics.
- **Naval Compliance:** Engineered for maritime regulations and harsh environments.
- **Custom Solutions:** Customized solutions and support ensure customer success throughout the entire system design and integration process.

ALFA Electrical Specification

| | |
|--------------------|----------------|
| Stack Voltage | 1 – 0,2 V cell |
| Stack Current | 0 – 640 A |
| CVM Reading Ranges | -0,1 to 1 V |

ALFA Marine Electrical Specification

| | |
|--------------------|--|
| Stack Voltage | 1 – 0,2 V cell |
| Stack Current | 1P Config. 0-320 A 2P Config. 0-640 A |
| CVM Reading Ranges | -0,1 to 1 V |

ALFA model

| | Number of Cells | Nominal power kW |
|----------|-----------------|------------------|
| ALFA-216 | 216 | 50 |
| ALFA-432 | 432 | 100 |
| ALFA-648 | 648 | 150 |
| ALFA-864 | 864 | 200 |

ALFA Marine model

| | Number of Cells | Nominal power kW | Configuration |
|------------------|-----------------|------------------|---------------|
| ALFA Marine-311 | 311 | 60 | 1P311S |
| ALFA Marine-622 | 622 | 120 | 1P622S |
| ALFA Marine-1244 | 1244 | 150240 | 2P622S |

Arco Technologies general description

Arco Technologies is at the forefront of the clean energy sector and in promoting a low-carbon transition through its proton exchange membrane (PEM) cells and, more recently, anion exchange membrane (AEM) electrolyzers. With over 20 years of experience in hydrogen-related electrochemical technologies, we have developed expertise in all aspects, from electrodes to stacks and system equipment, making us experts in system integration as well. In addition to offering a portfolio of standardized products, we develop custom solutions for clients and provide support during the integration phase.

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