

## PURECELL SYSTEM BENEFITS

### Energy Security

Proven PAFC fuel cell technology that is setting durability records

### Energy Productivity

Increased efficiency and continuous on-site generation reduces energy costs

### Energy Responsibility

No emissions equals sustainability

## PURECELL SYSTEM COMPETITIVE ADVANTAGES

### Long Life

Industry leading 10-year cell stack life assures high availability and low service cost

### Modular & Scalable

Solutions for multi-megawatt applications to meet growing energy demand

### Experience

60+ years of fuel cell development

### High Efficiency

Up to 90% total CHP Efficiency

### Small Footprint

Highest power density among clean generation technologies

### Flexible Siting

Indoor, outdoor, rooftop, multi-unit

## RATED POWER OUTPUT: 440KW, 480VAC, 60HZ

Characteristic	Units	Value <sup>1</sup>
Electric Power Output	kW/kVA	440/517
Electrical Efficiency	%, LHV	50
Peak Overall Efficiency	%, LHV	90
Hydrogen Purity, Minimum <sup>2</sup>	%	99.9
Hydrogen Input	Energy kW (MMBtu/h), HHV	1,039 (3.59)
	Volume <sup>3</sup> Nm <sup>3</sup> /h (SCFH)	295 (10,328)
	Mass kg/h (lbs/h)	26.4 (58.1)
Heat Output @ up to 121°C (250°F)	kW (MMBtu/h)	352 (1.20)

## FUEL

Supply..... Hydrogen Gas  
Inlet Pressure<sup>4</sup> ..... 5 ± 0.25 bar(g)

## EMISSIONS

Zero emissions of CO<sub>2</sub>, NO<sub>x</sub>, SO<sub>x</sub>, CO, and VOCs. Heat output can offset additional CO<sub>2</sub> from combustion heat generation (e.g., boilers).

## OTHER

Ambient Operating Temp ..... Max Power -20°F to 104°F (-29°C to 40°C)<sup>5</sup>  
Sound Level ..... < 65 dBA @ 33 ft. (10m)  
Water Consumption ..... None



**Daesan Green Energy Project**  
50 MW | 114 Units | South Korea

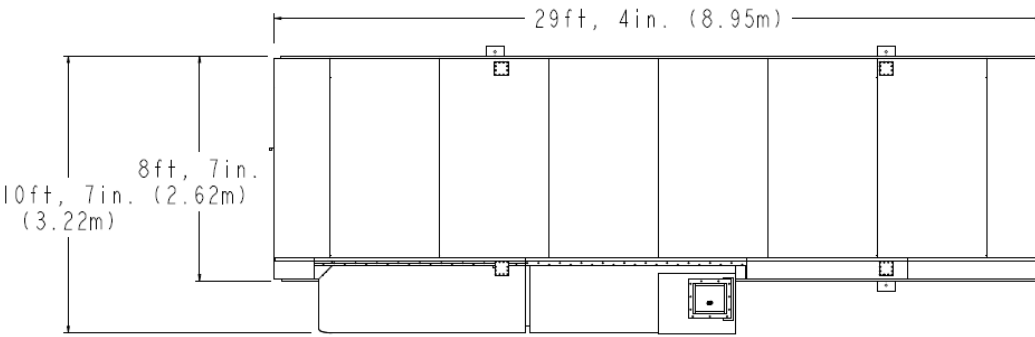
## NOTES

1. Average performance during 1<sup>st</sup> year of operation. Refer to the Product Data and Applications Guide for performance over the operating life of the powerplant.
2. Contact HyAxiom for requirements on other gas constituents or for lower purity H<sub>2</sub>.
3. Based on Hydrogen gas higher heating value of 343 Btu / SCF (12.8 MJ/Nm<sup>3</sup>).
4. Contact HyAxiom for lower inlet pressures.
5. Derate at ambient temperatures outside of specified range. Contact HyAxiom for details.

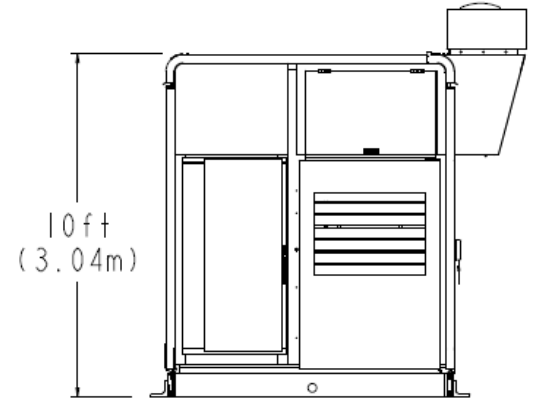
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**SYSTEM DIMENSIONS**

**Power Module**

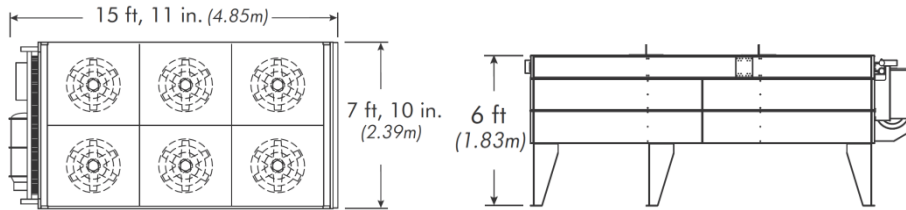


**Top View**



**Side View**

**Cooling Module**



**Top View**

**Side View**

**PHYSICAL SPECIFICATIONS**

	<b>Power Module</b>	<b>Cooling Module</b>
Length	29' 4" (8.95m)	15' 11" (4.85m)
Width	8' 7" (2.62m)	7' 10" (2.39m)
Height	10' 0" (3.04m)	6' 0" (1.83m)
Weight	49,428 lb (22,420 kg)	3,190 lb (1,447 kg)

Typical outdoor applications require a 30' x 40' area, including for customer interface equipment. Larger installations typically require less area for subsequent units.

**PureCell® ADVANTAGE**

**Take Control of Your Power**



**Load Following**

Dynamically ramp power up & down based on demand



**Continuous Operation**

Operate with or without grid power and handle long-duration intermittency



**Performance Monitoring**

Manage performance with HyAxiom monitoring and service

**Advance ESG Goals**



**Zero-Carbon**

Zero CO<sub>2</sub> emissions helps you achieve challenging carbon footprint goals



**Clean Heat**

Eliminate or reduce carbon from combustion boilers by using both heat & power



**Clean Air**

- Zero NO<sub>x</sub> & SO<sub>x</sub>
- Zero CO
- Zero VOCs

**Power Where You Need It**



**Flexible Siting**

- Indoor / Outdoor
- Urban Environments
- Multi-story, Rooftop
- Scalable Building Block



**Quiet Operation**

65 dBA @ 33 ft., equivalent to normal conversation

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